

## SUPPORTING INFORMATION

### Synthesis and Cholinesterase Inhibitory Activity of Selected Indole-Based Compounds

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<sup>b.</sup> *University of Ljubljana, Faculty of Pharmacy, Aškerčeva 7, SI-1000 Ljubljana, Slovenia.*

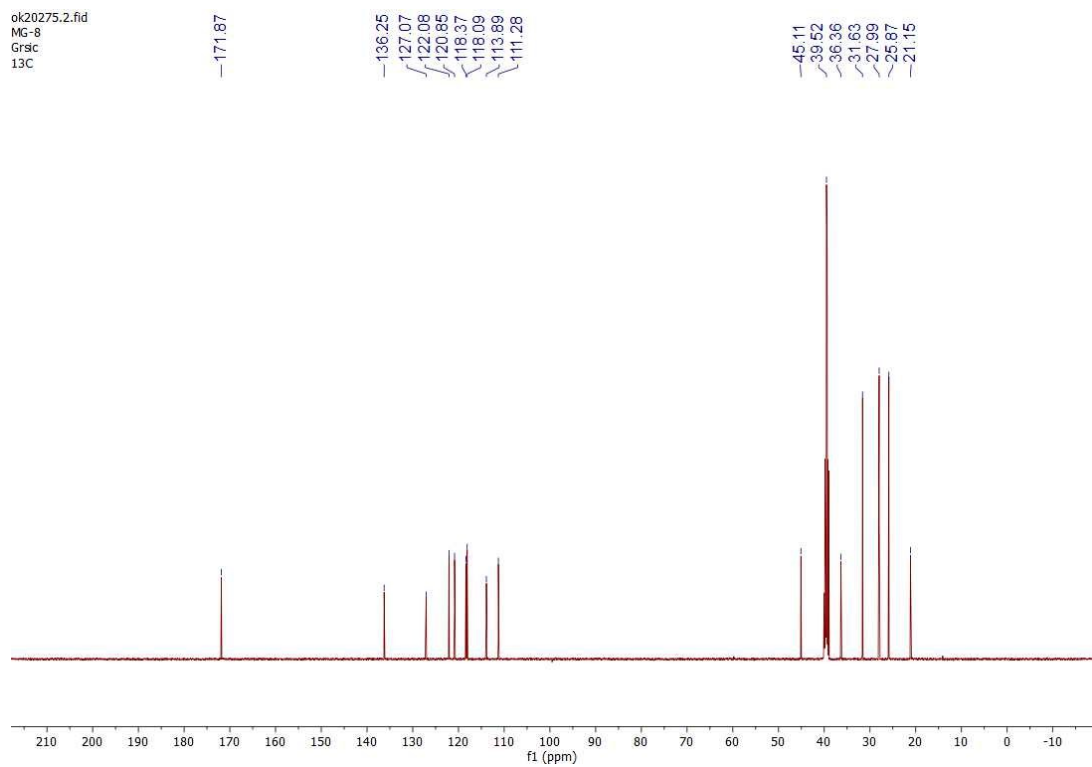
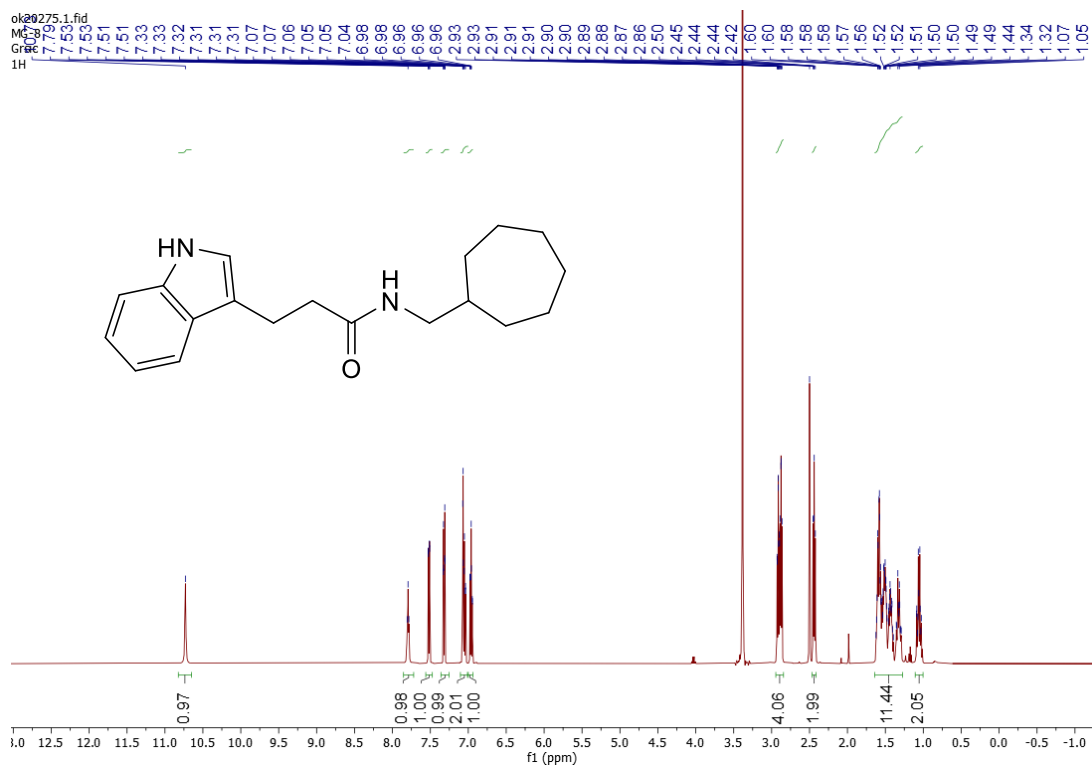
<sup>c.</sup> *University of Maribor, Faculty of Chemistry and Chemical Engineering, Smetanova ulica 17, 2000 Maribor, Slovenia.*

#### Table of contents

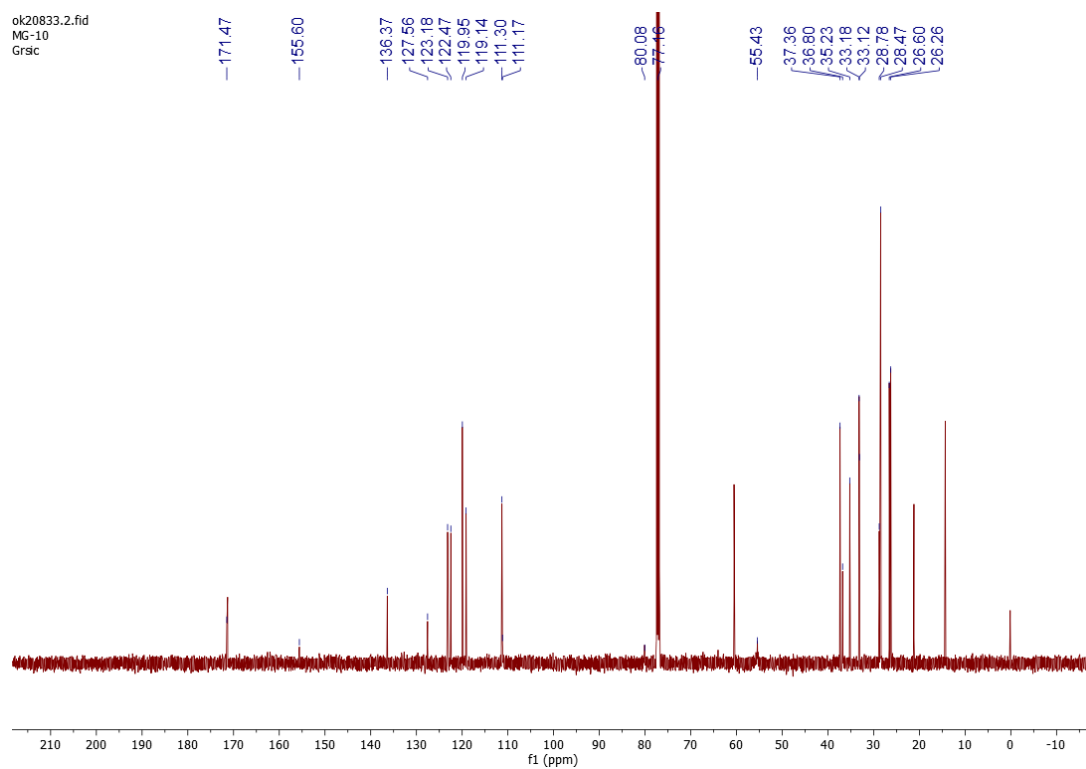
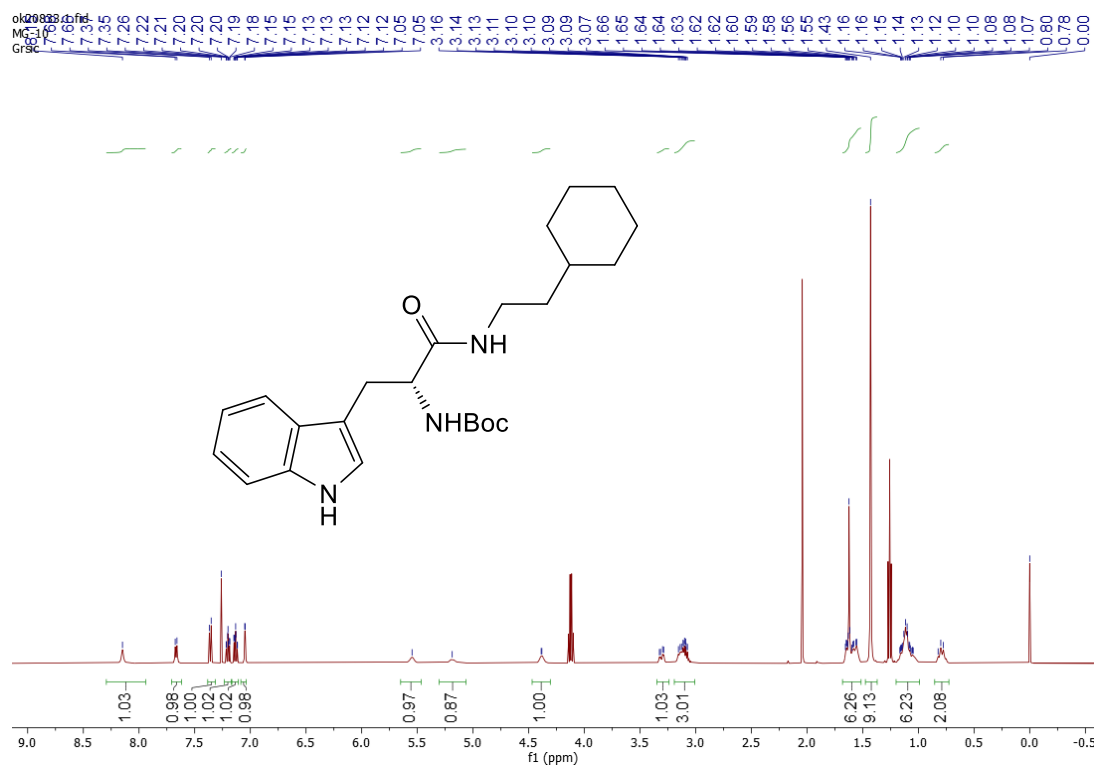
|                |    |
|----------------|----|
| 1. NMR spectra | 2  |
| 2. MS spectra  | 20 |

## NMR spectra

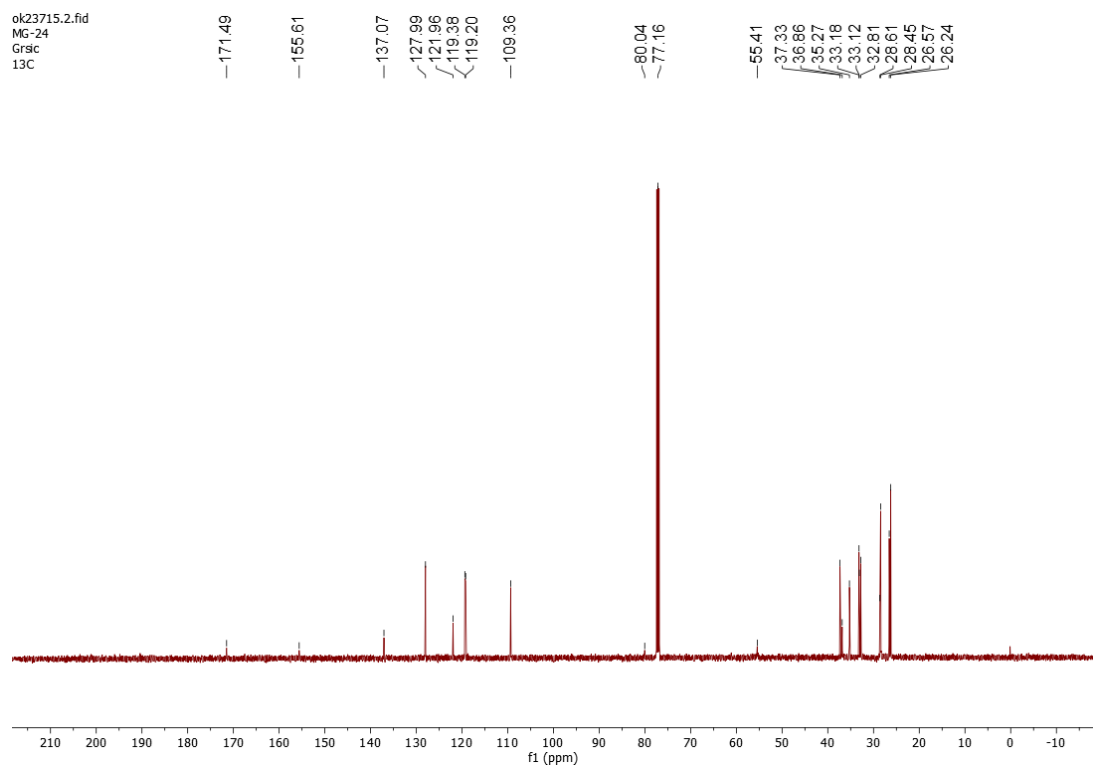
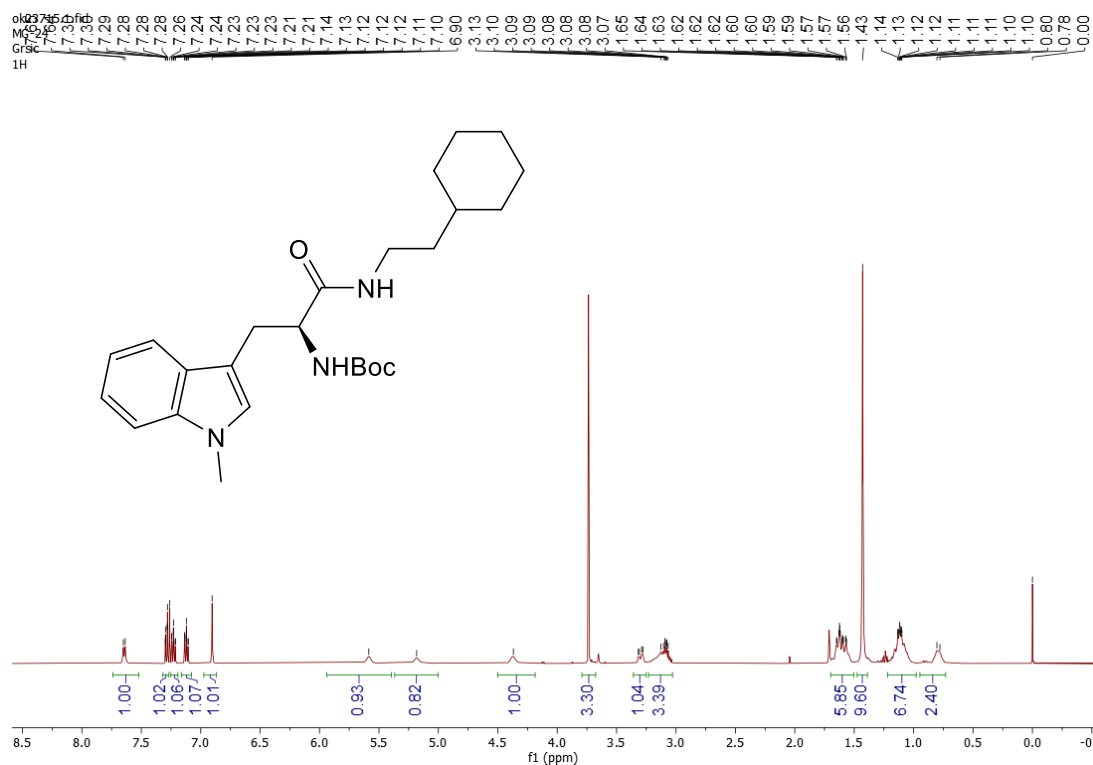
### *N*-(Cycloheptylmethyl)-3-(1*H*-indol-3-yl)propanamide (8)



***tert*-Butyl (R)-(1-((2-cyclohexylethyl)amino)-3-(1*H*-indol-3-yl)-1-oxopropan-2-yl)carbamate (9)**

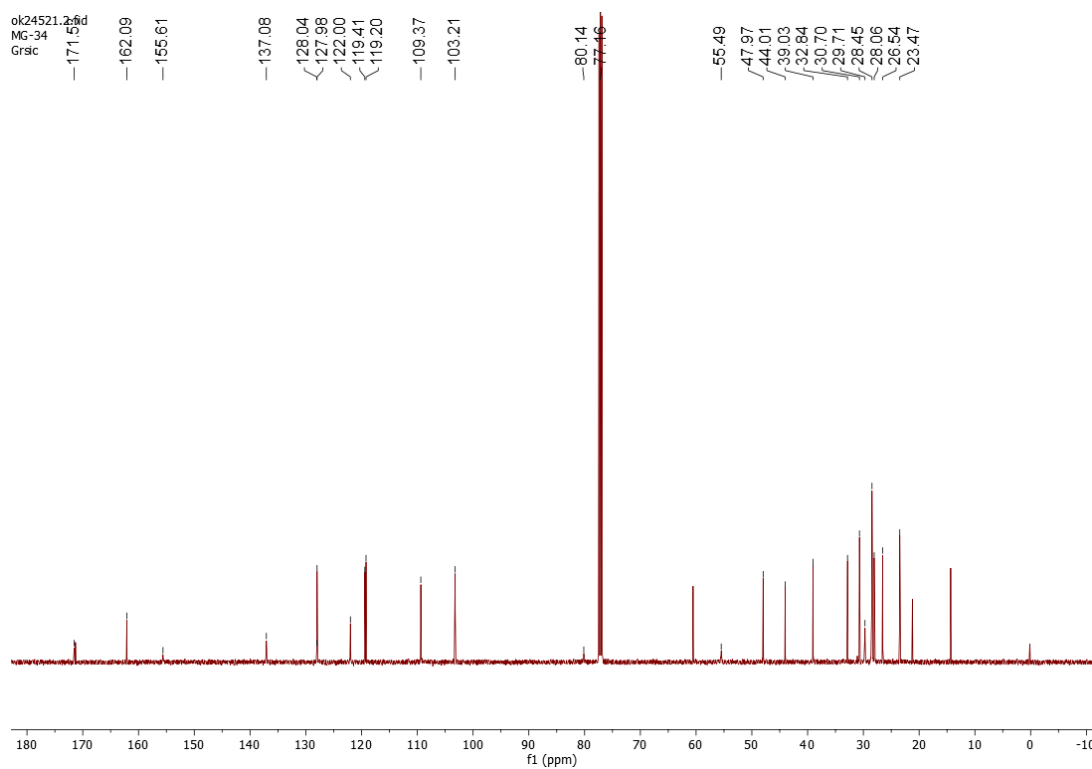
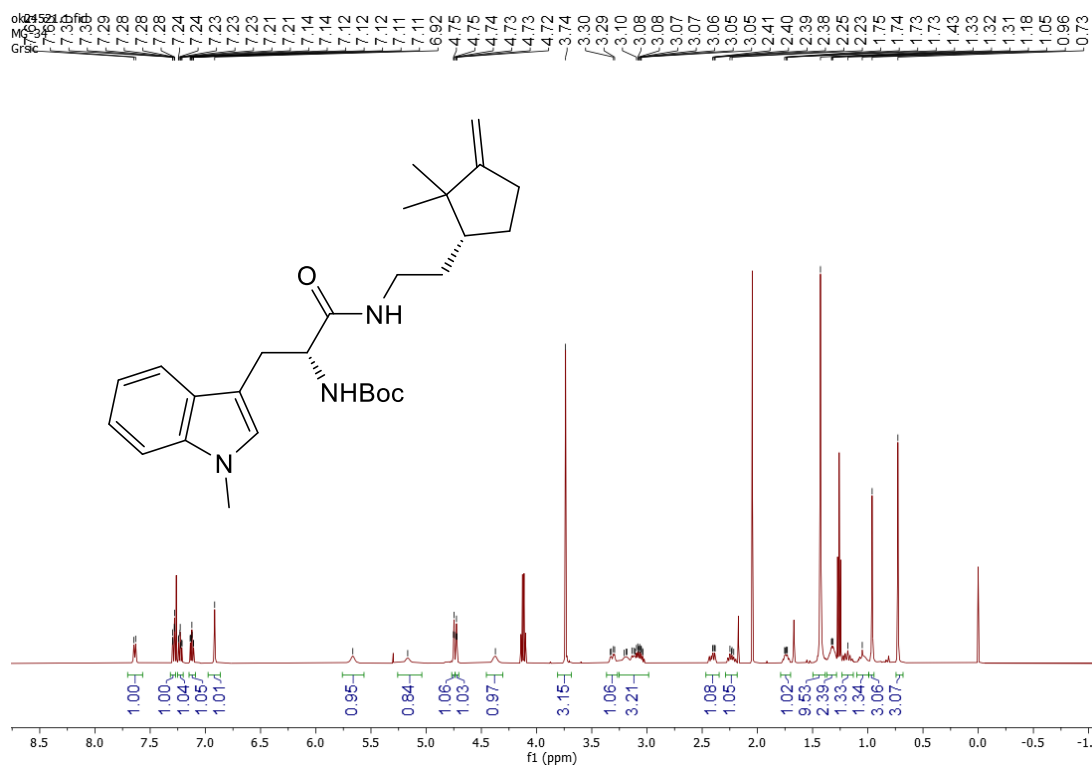


***tert*-Butyl (S)-1-((2-cyclohexylethyl)amino)-3-(1-methyl-1*H*-indol-3-yl)-1-oxopropan-2-yl)carbamate (10)**



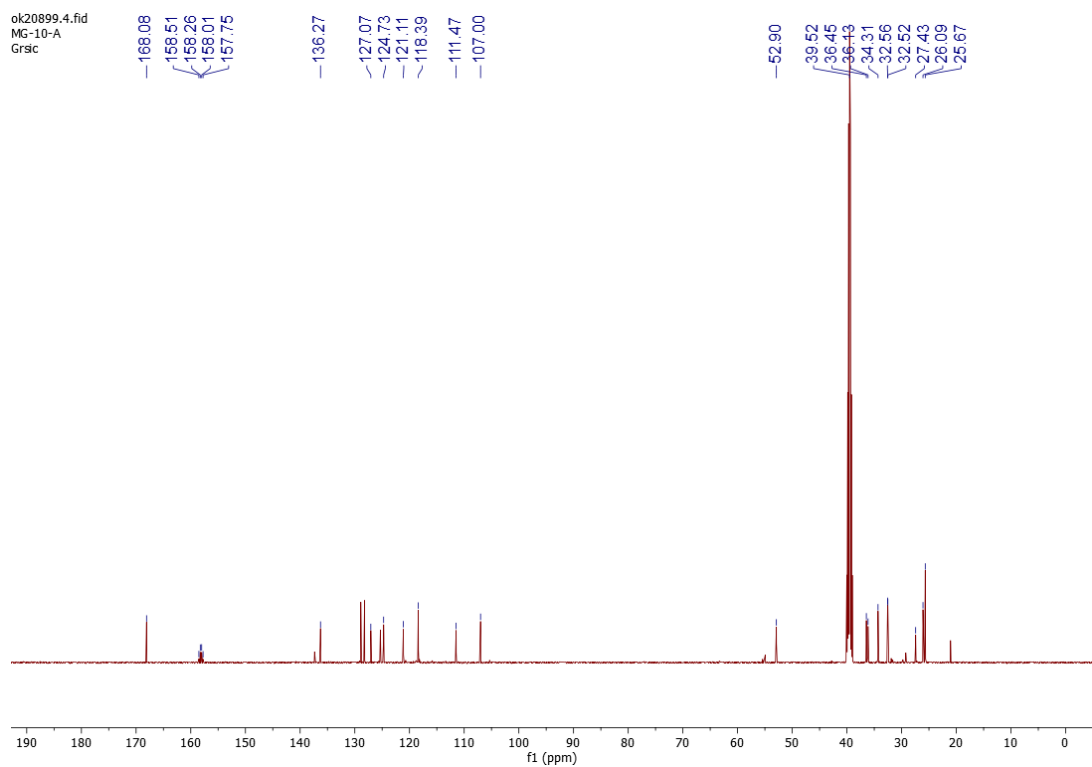
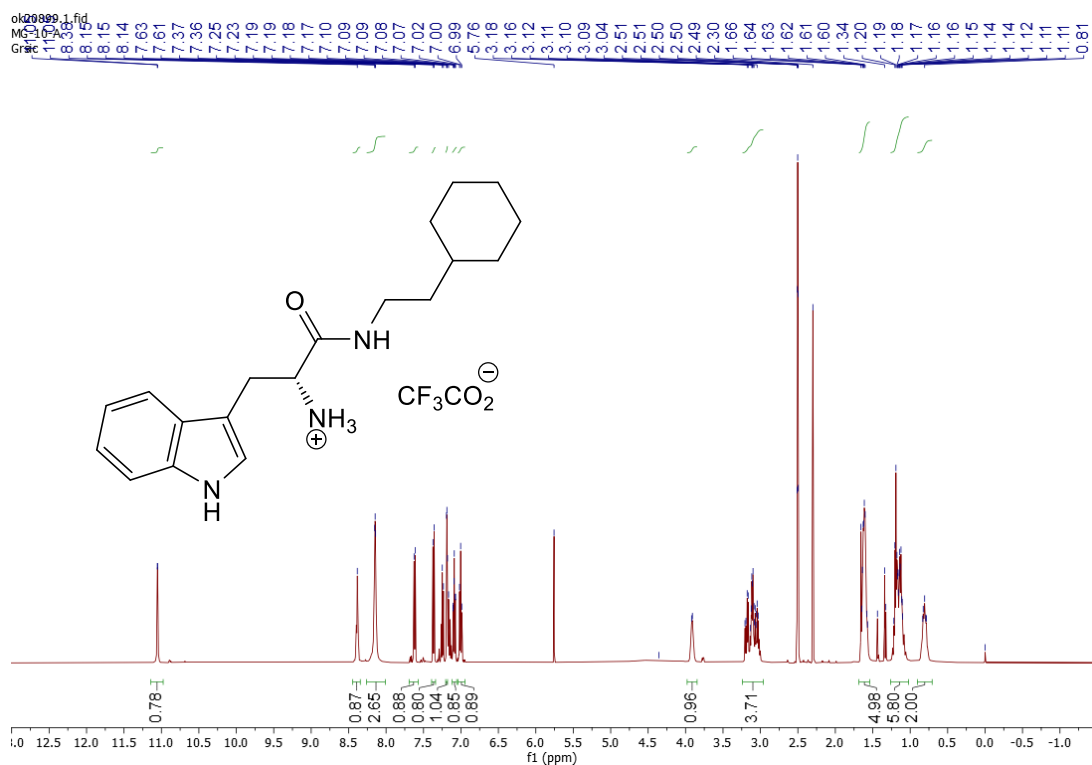
[illegible]

***tert*-Butyl ((*R*)-1-((2-((*R*)-2,2-dimethyl-3-methylenecyclopentyl)ethyl)amino)-3-(1-methyl-1*H*-indol-3-yl)-1-oxopropan-2-yl)carbamate (12)**



**(R)-1-((2-Cyclohexylethyl)amino)-3-(1*H*-indol-3-yl)-1-oxopropan-2-aminium  
trifluoroacetate (13)**

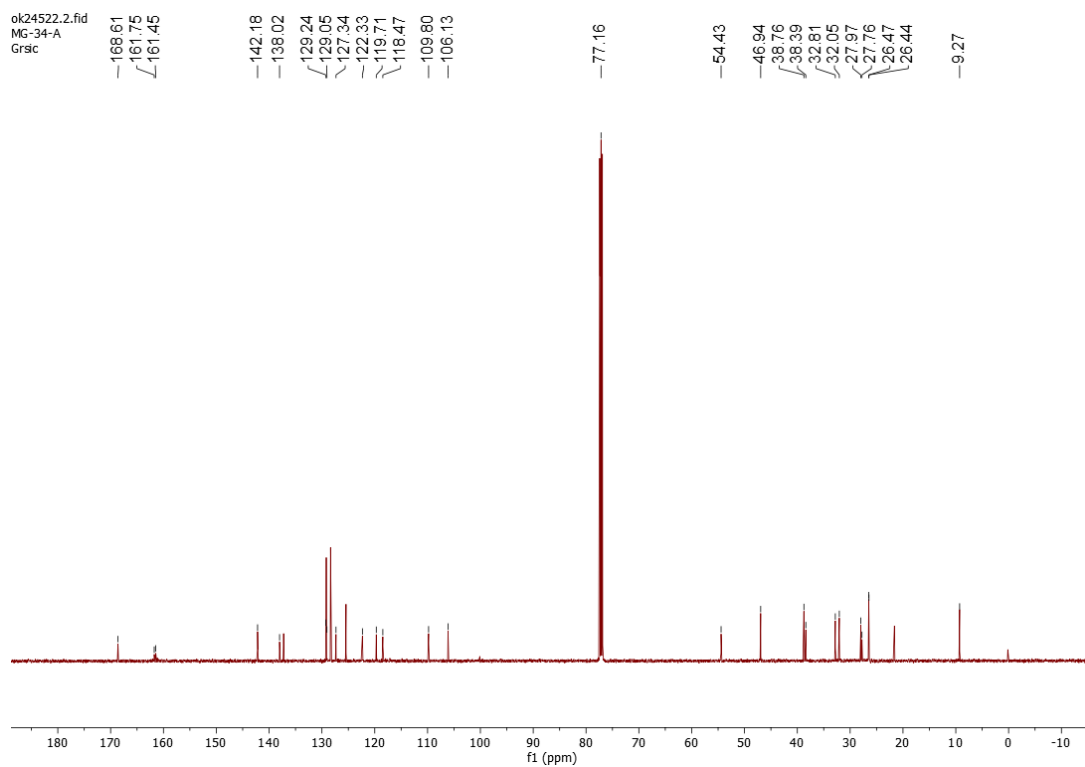
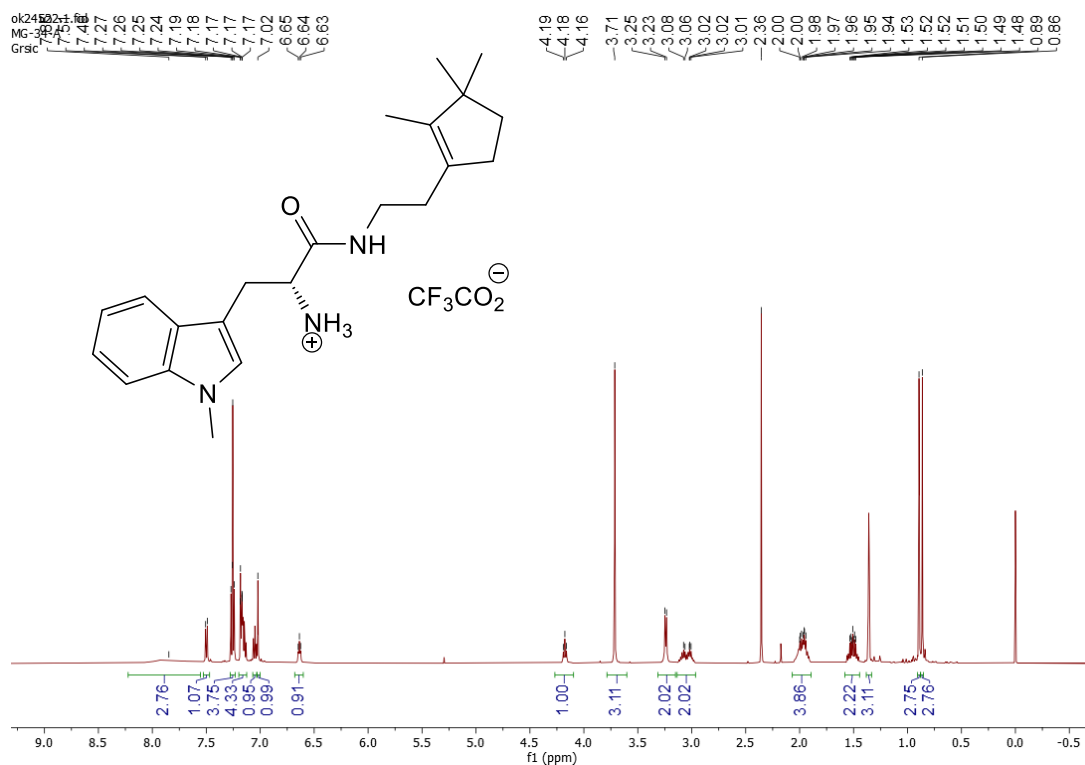
**2,2,2-**



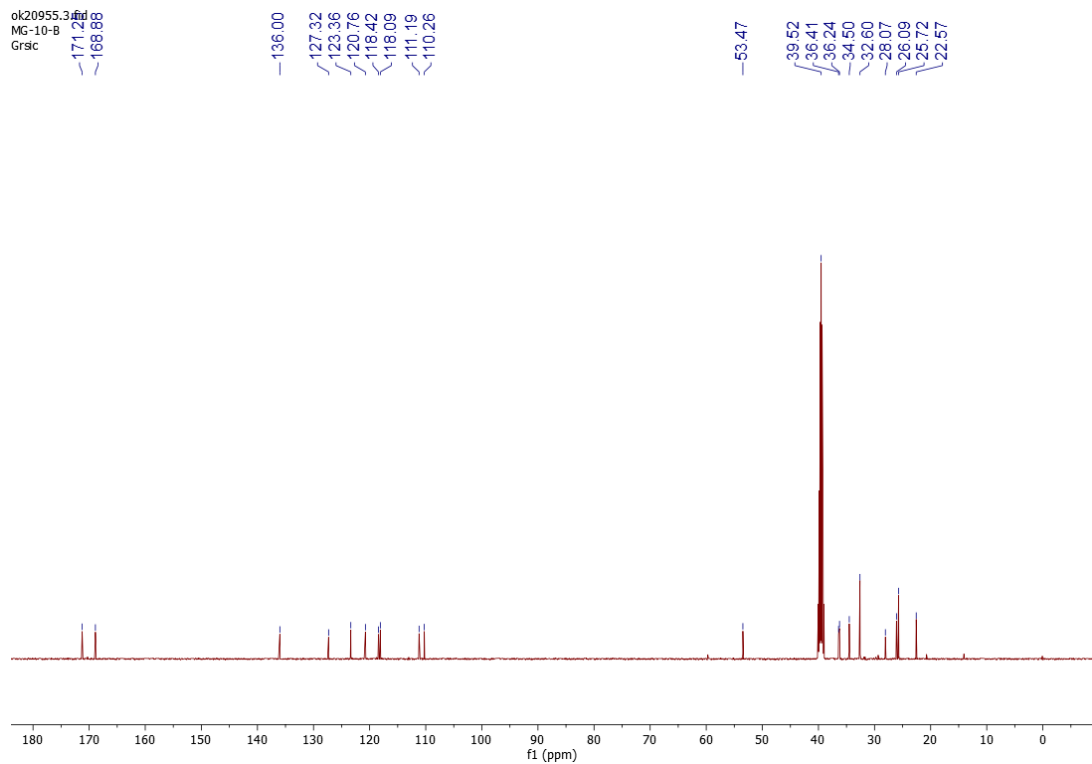
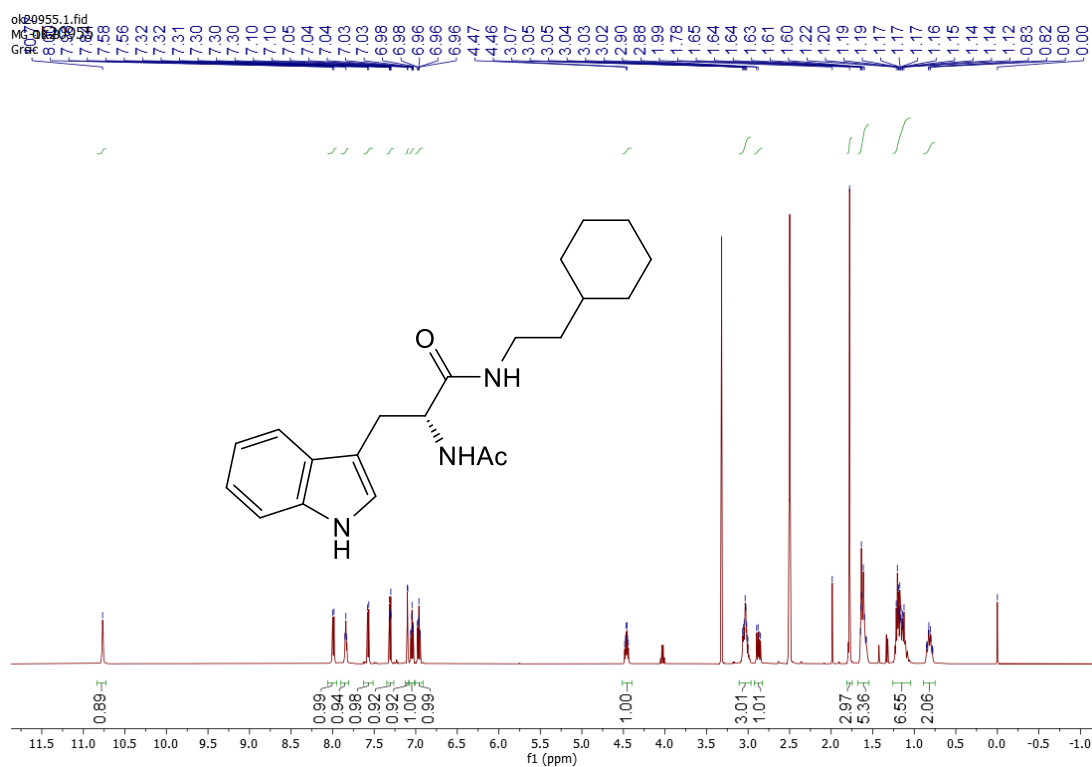
Toluene is present in the sample.

[illegible]

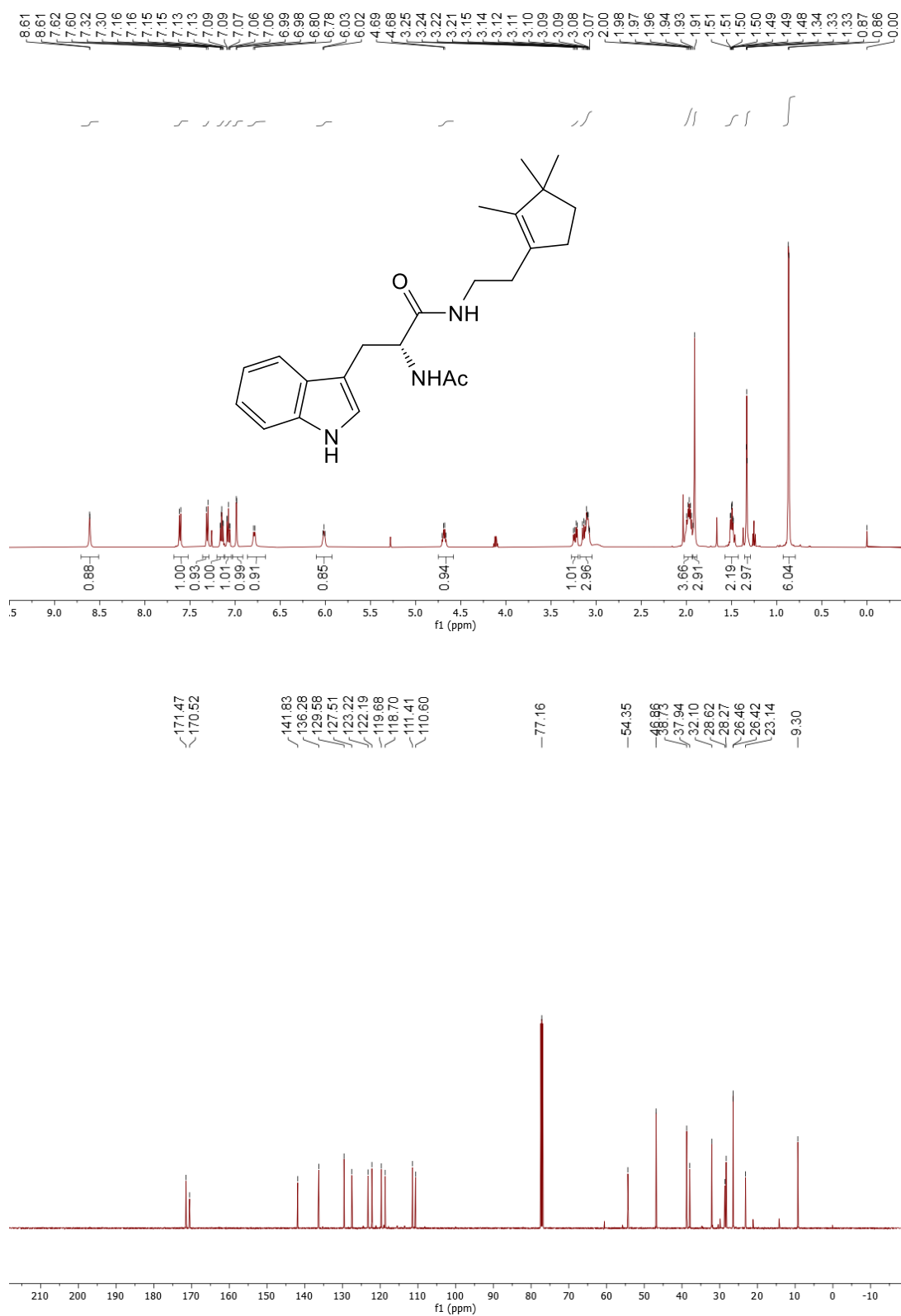
**(R)-3-(1-Methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-aminium 2,2,2-trifluoroacetate (15)**



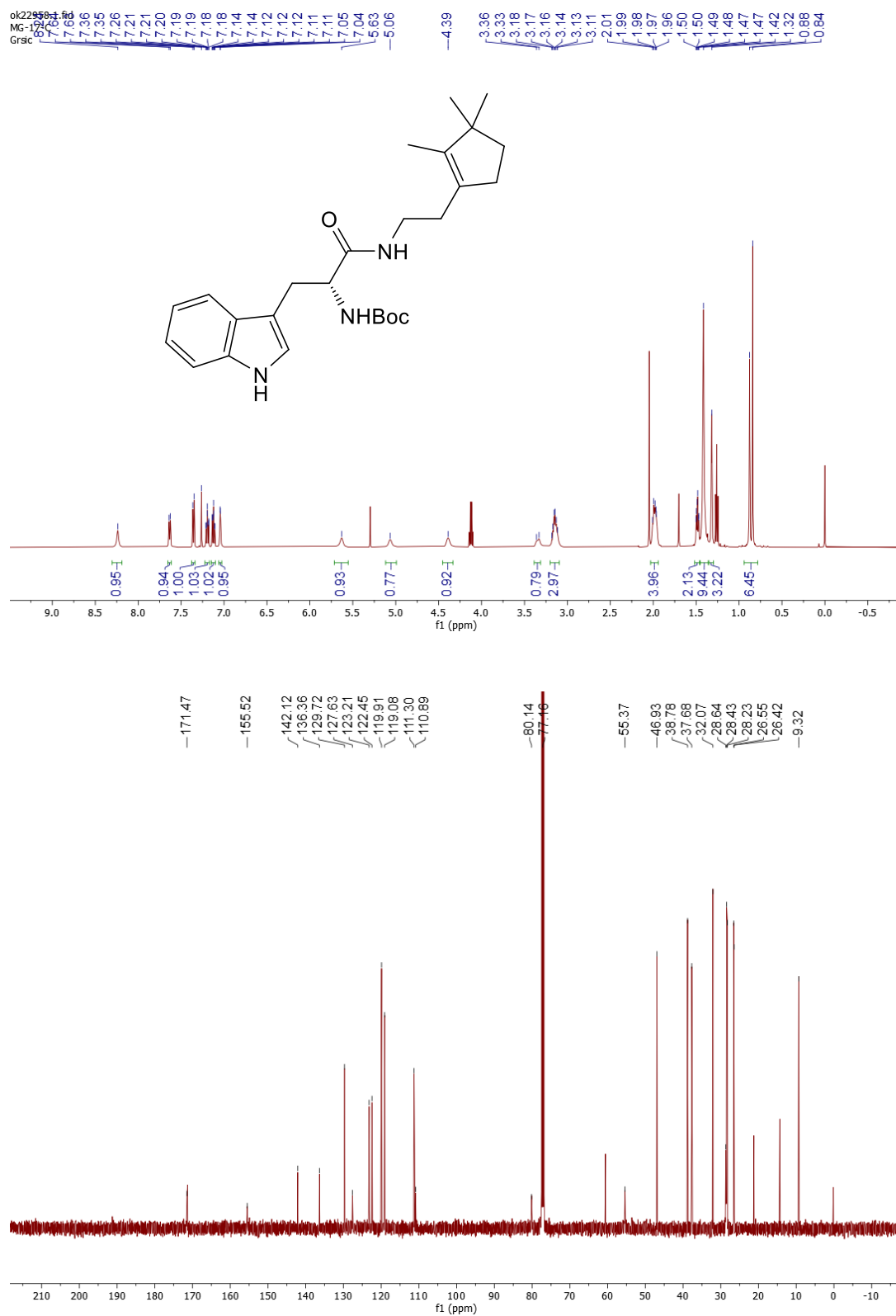
**(R)-2-Acetamido-N-(2-cyclohexylethyl)-3-(1*H*-indol-3-yl)propanamide (19)**



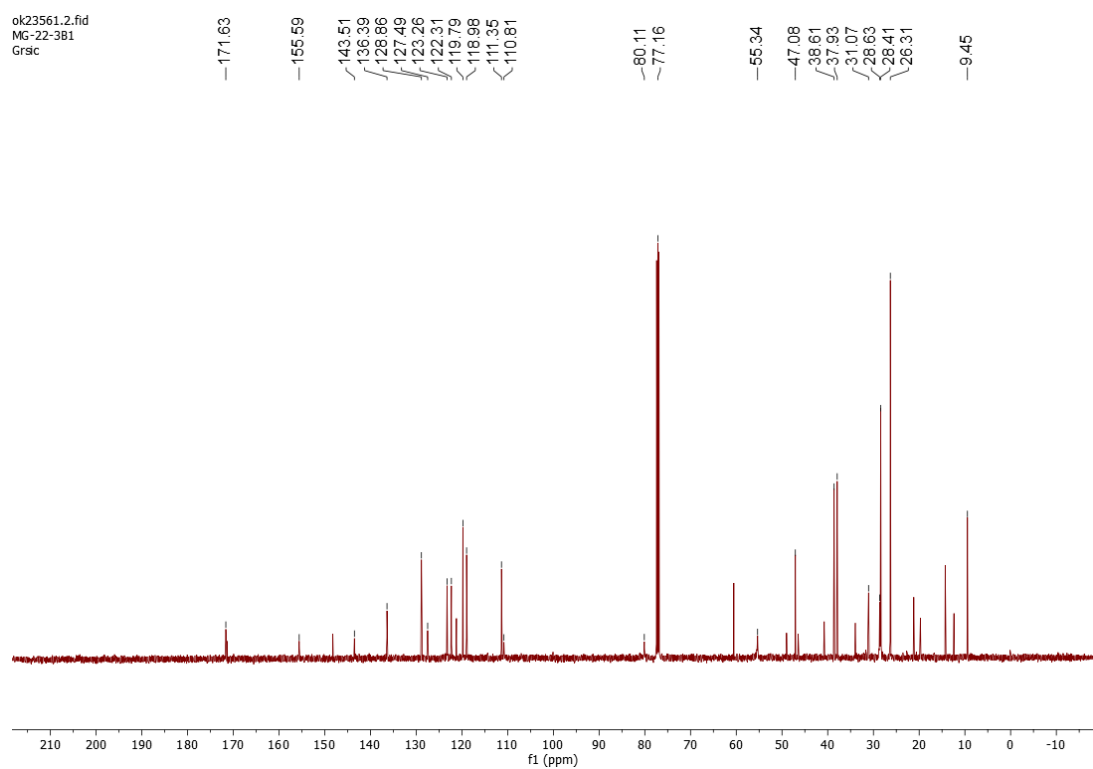
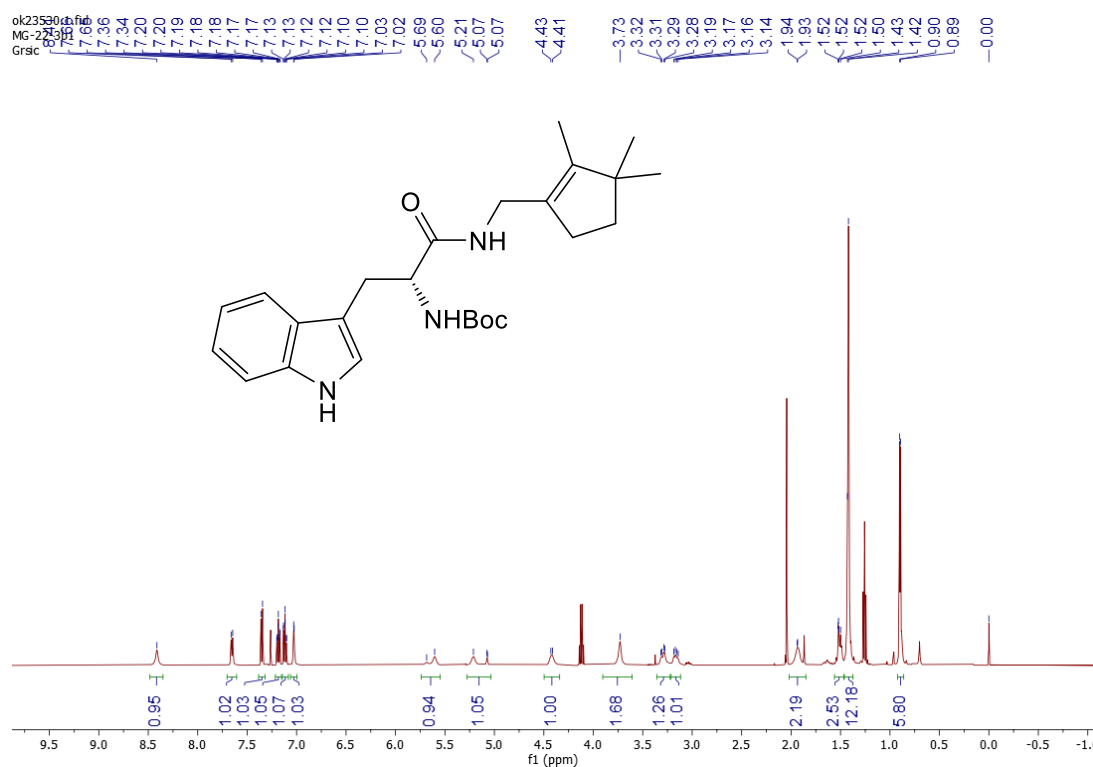
**(R)-2-Acetamido-3-(1*H*-indol-3-yl)-*N*-(2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)propanamide (20)**



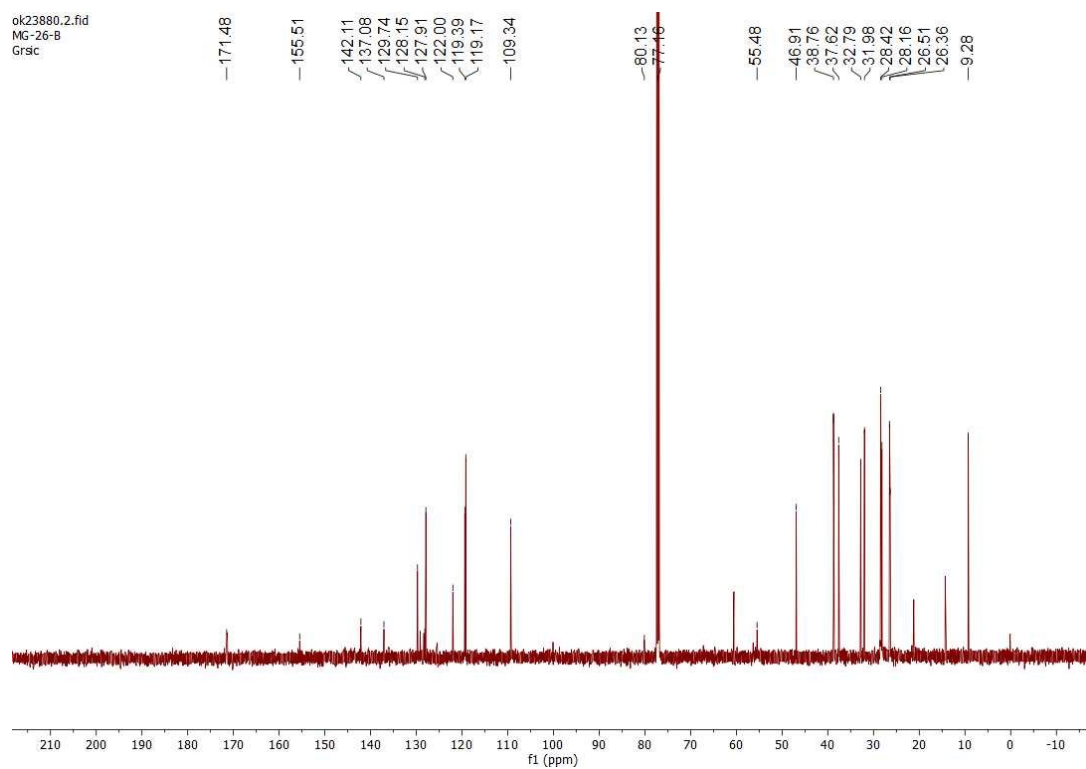
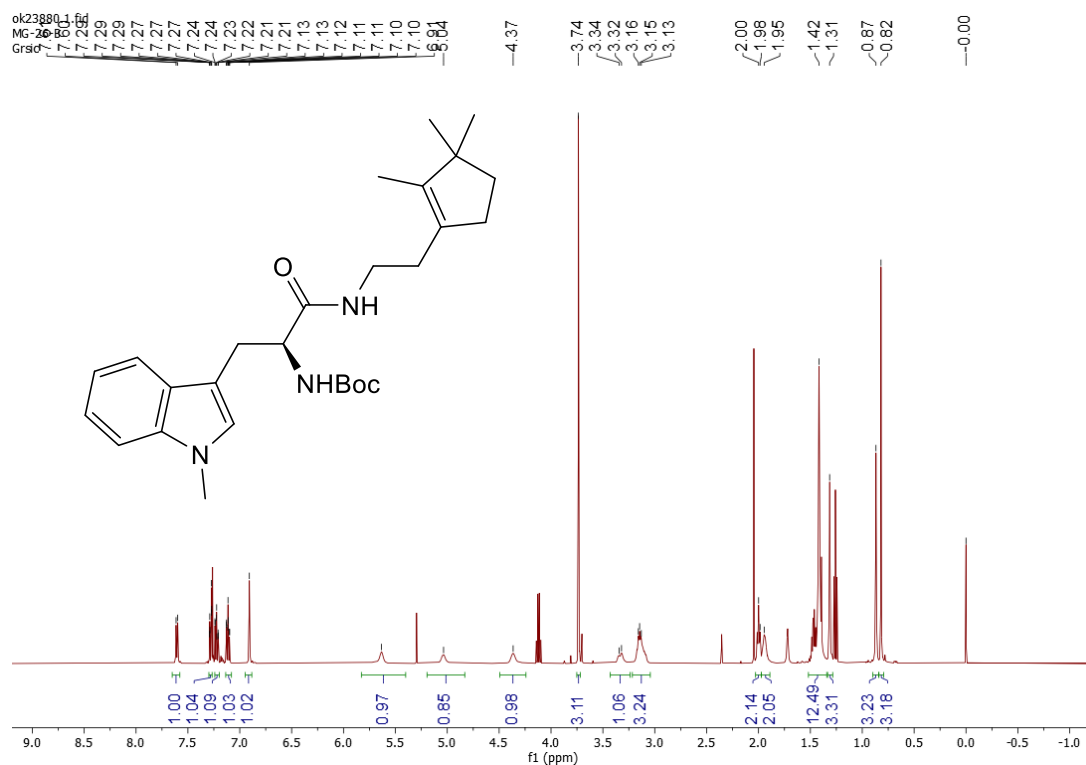
***tert*-Butyl (R)-(3-(1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (21)**



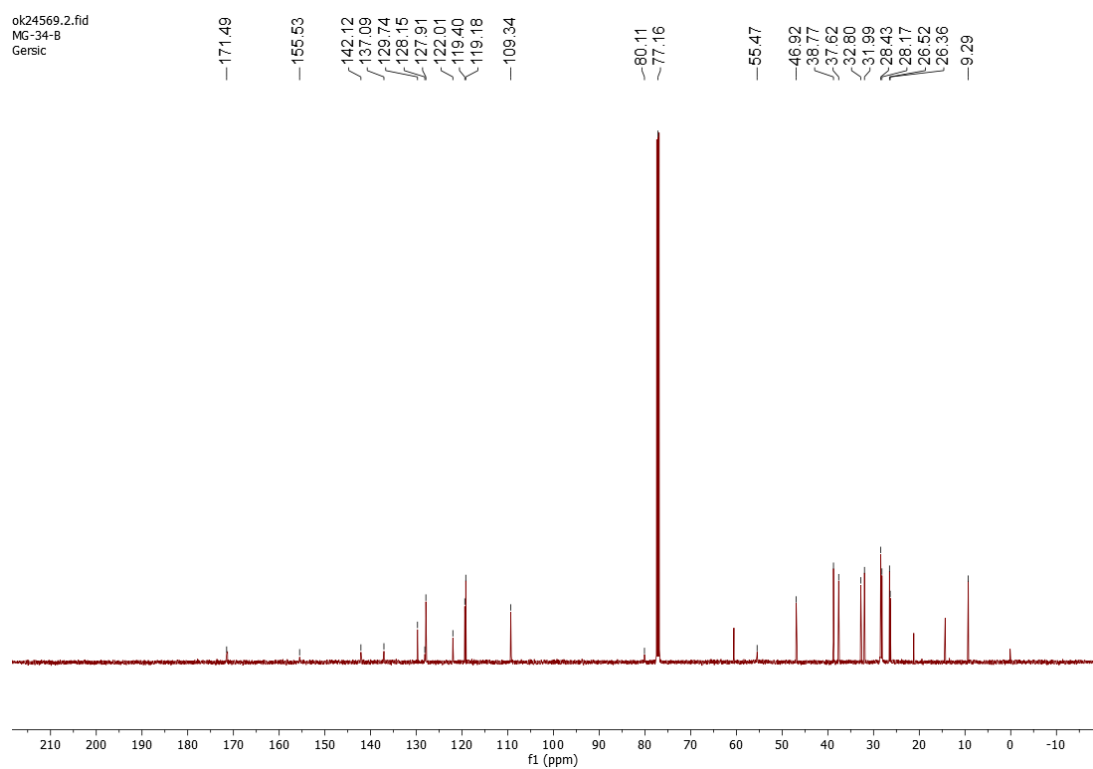
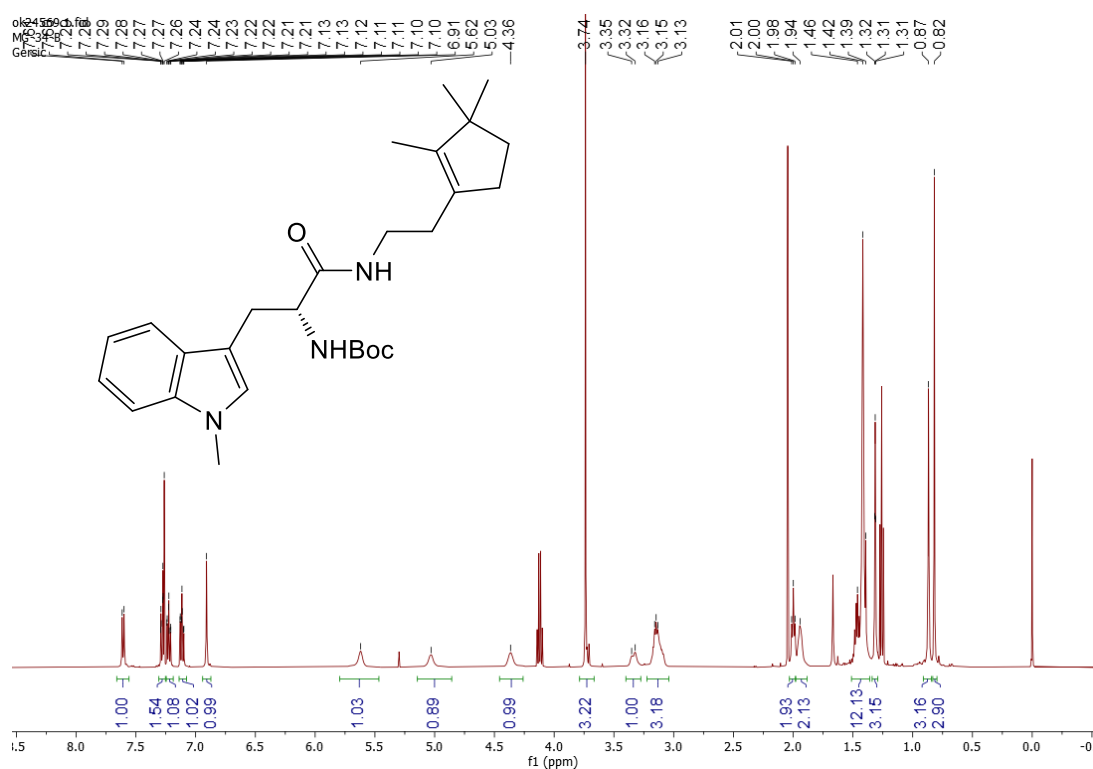
***tert*-Butyl (R)-(3-(1*H*-indol-3-yl)-1-oxo-1-(((2,3,3-trimethylcyclopent-1-en-1-yl)methyl)amino)propan-2-yl)carbamate (22)**



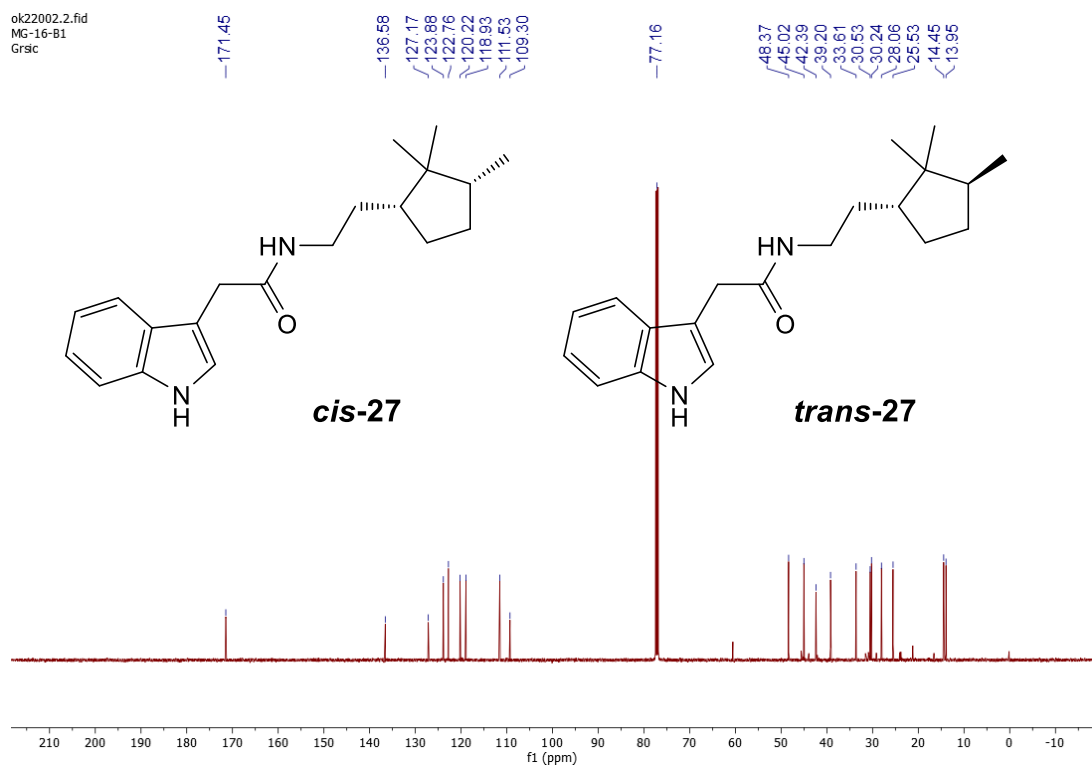
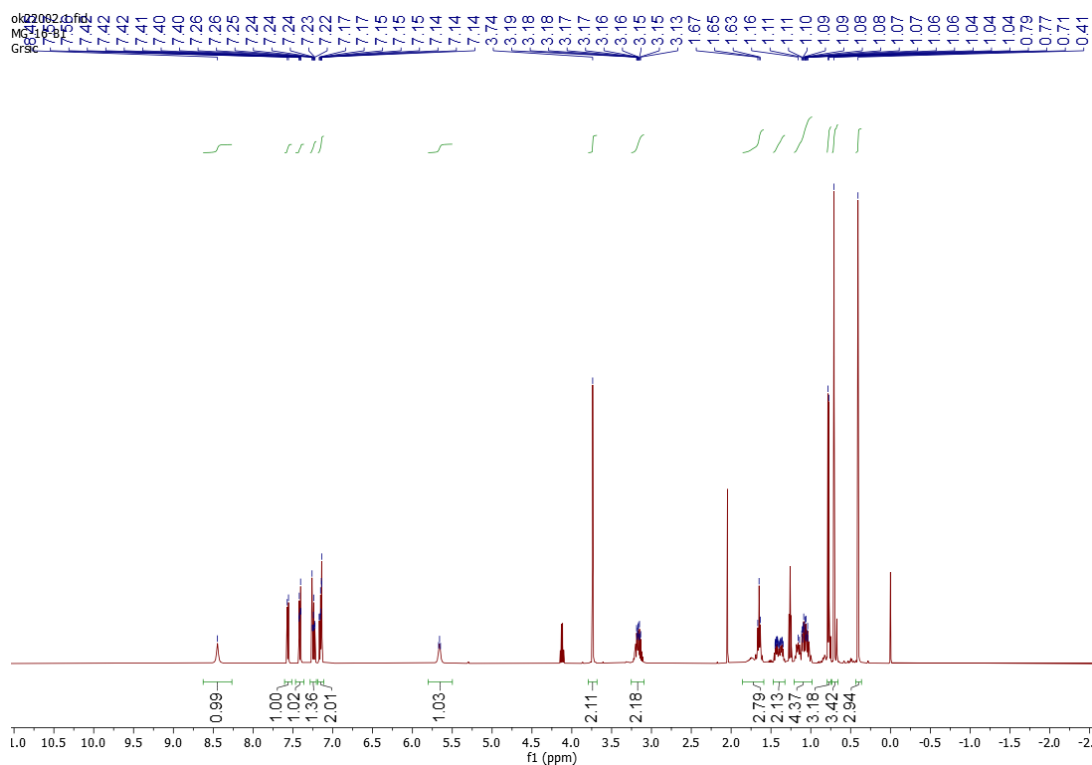
***tert*-Butyl (S)-(3-(1-methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (23)**



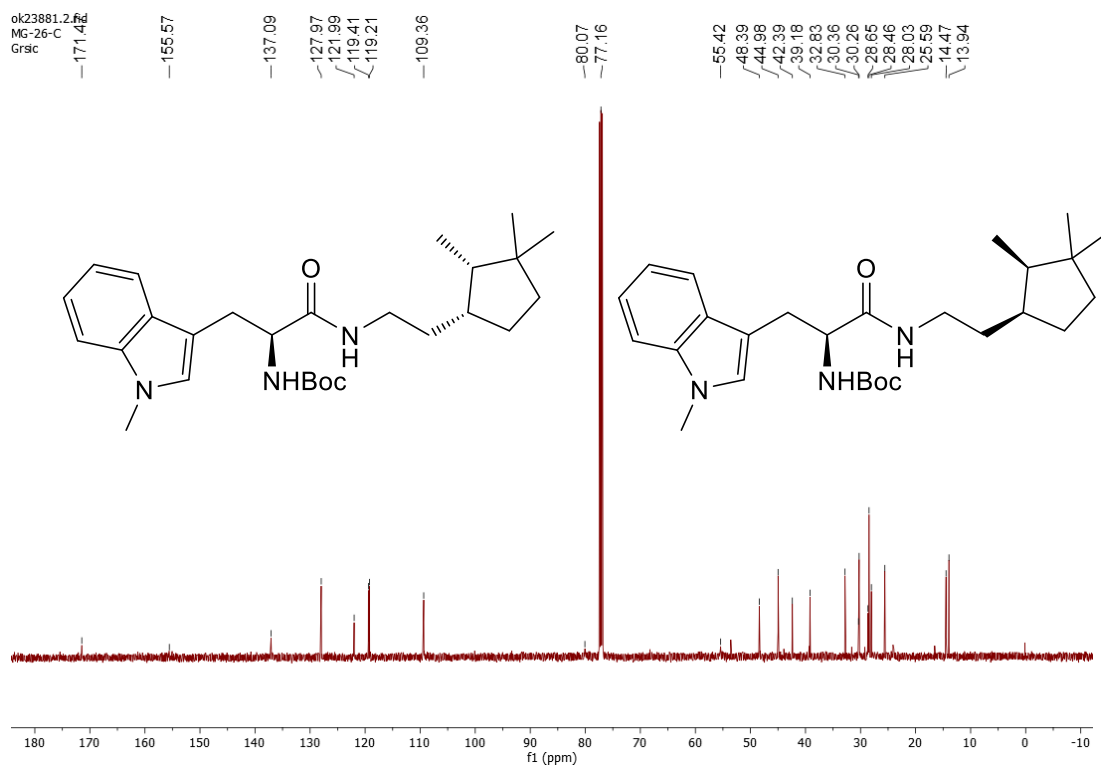
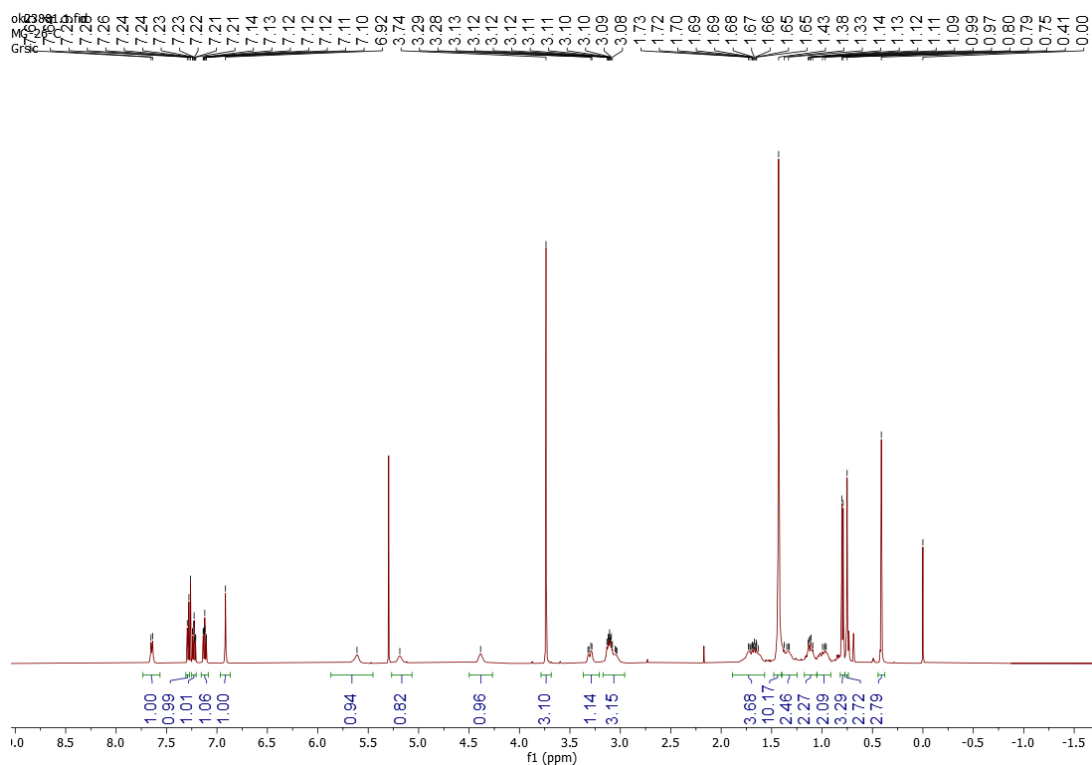
***tert*-Butyl (R)-(3-(1-methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (24)**



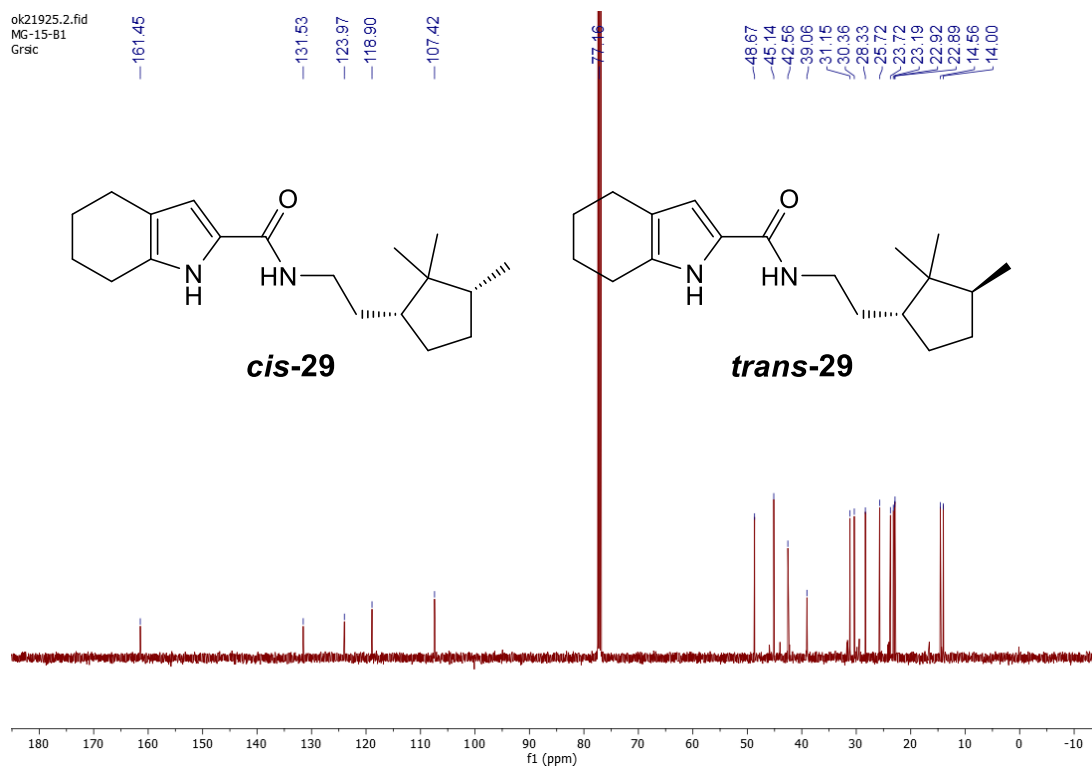
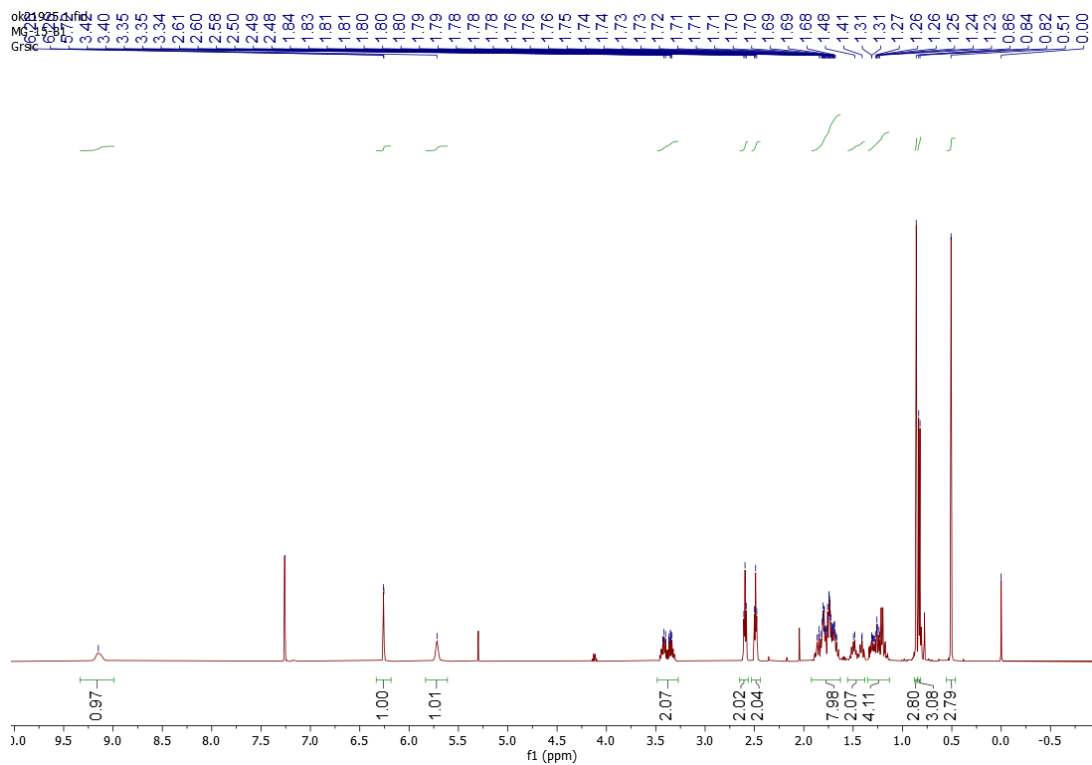
**2-(1*H*-Indol-3-yl)-*N*-(2-(((1*R*,3*R*)-2,2,3-trimethylcyclopentyl)ethyl)acetamide (*cis*-27) and 2-(1*H*-indol-3-yl)-*N*-(2-(((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)acetamide (*trans*-27)**



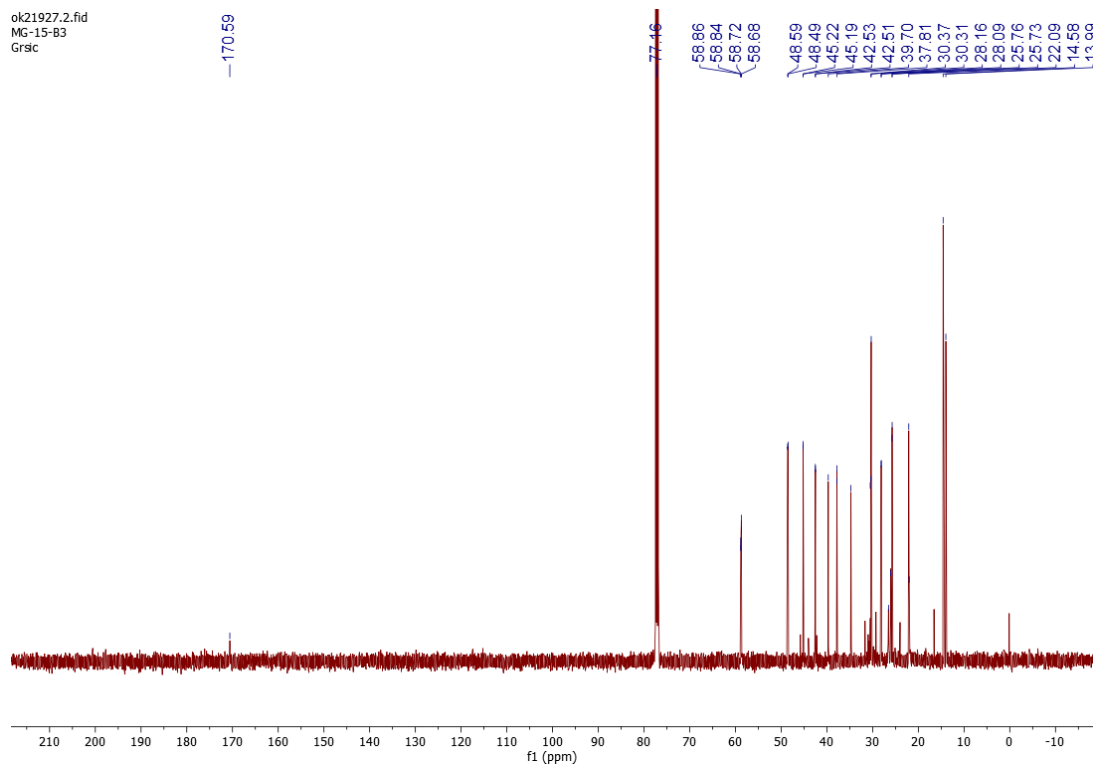
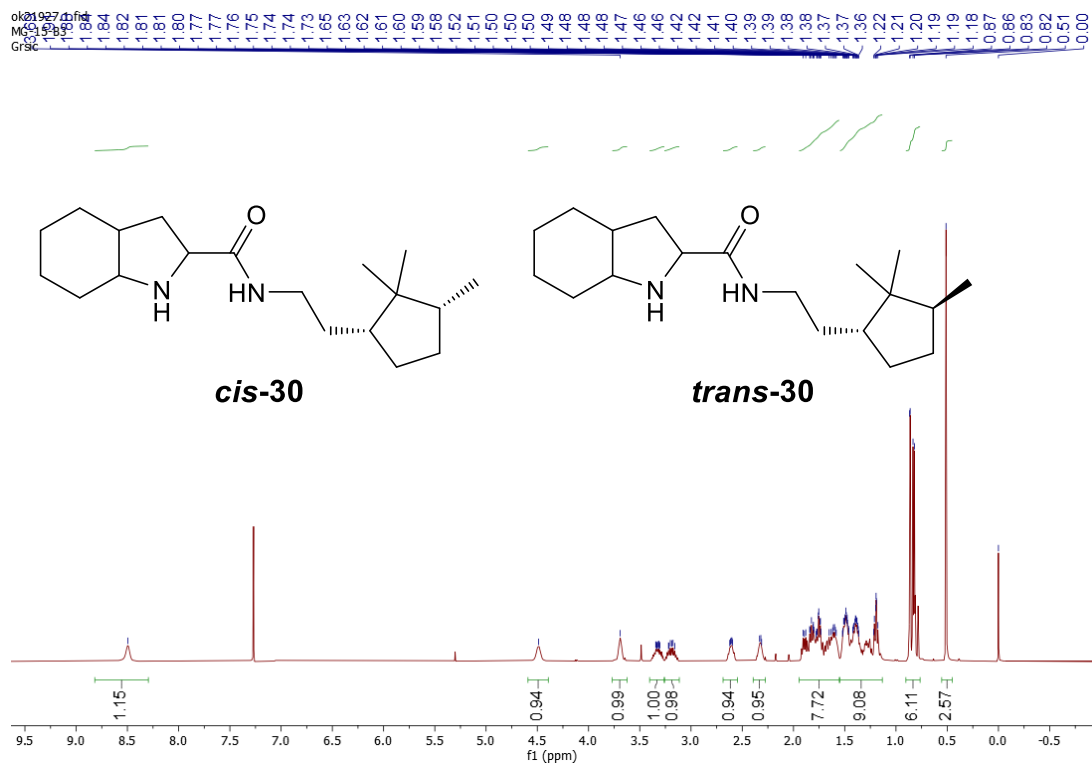
***tert*-Butyl ((*S*)-3-(1-methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopentyl)ethyl)-amino)propan-2-yl)carbamate (28)**



***N*-(2-((1*R*,3*R*)-2,2,3-Trimethylcyclopentyl)ethyl)-4,5,6,7-tetrahydro-1*H*-indole-2-carboxamide (*cis*-29) and *N*-(2-((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)-4,5,6,7-tetrahydro-1*H*-indole-2-carboxamide (*trans*-29)**



***N*-(2-((1*R*,3*R*)-2,2,3-Trimethylcyclopentyl)ethyl)octahydro-1*H*-indole-2-carboxamide (*cis*-30) and *N*-(2-((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)octahydro-1*H*-indole-2-carboxamide (*trans*-30)**



## MS spectra

### *N*-(Cycloheptylmethyl)-3-(1*H*-indol-3-yl)propanamide (8)

#### Qualitative Compound Report

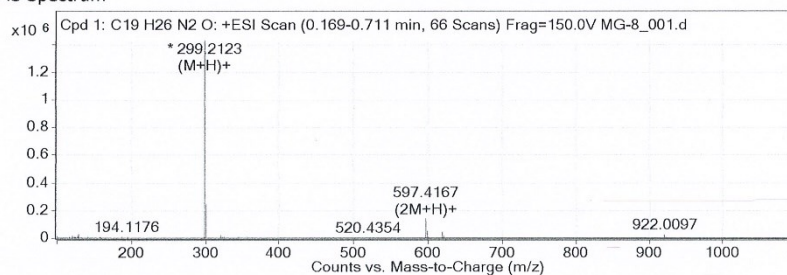
|                        |            |               |                      |
|------------------------|------------|---------------|----------------------|
| Data File              | MG-8_001.d | Sample Name   | MG-8                 |
| Sample Type            | Sample     | Position      | Vial 2               |
| Instrument Name        | US10310002 | User Name     | TOF-PC\admin         |
| Acq Method             | Bypass.m   | Acquired Time | 5/27/2016 9:57:17 AM |
| IRM Calibration Status | Success    | DA Method     | Damijana.m           |
| Comment                |            |               |                      |

| Compound Label      | m/z      | RT    | Algorithm                 | Mass     |
|---------------------|----------|-------|---------------------------|----------|
| Cpd 1: C19 H26 N2 O | 299.2119 | 0.237 | Find by Molecular Feature | 298.2044 |

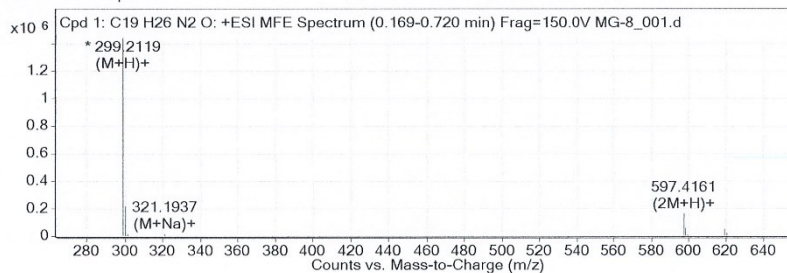
#### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula    | IonSpecies | Best |
|----------|---------------|------------|---------------|------------|------|
| 299.2119 | 299.2118      | -0.1       | C19 H27 N2 O  | (M+H)+     | ✓    |
| 321.1937 | 321.1924      | -1.3       | C17 H24 N5 Na | (M+Na)+    |      |

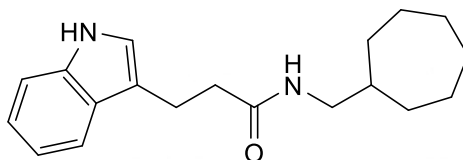
#### MS Spectrum



#### MFE MS Zoomed Spectrum



--- End Of Report ---



**tert-Butyl**  
**yl)carbamate (9)**

**(R)-1-((2-cyclohexylethyl)amino)-3-(1H-indol-3-yl)-1-oxopropan-2-**

## Qualitative Compound Report

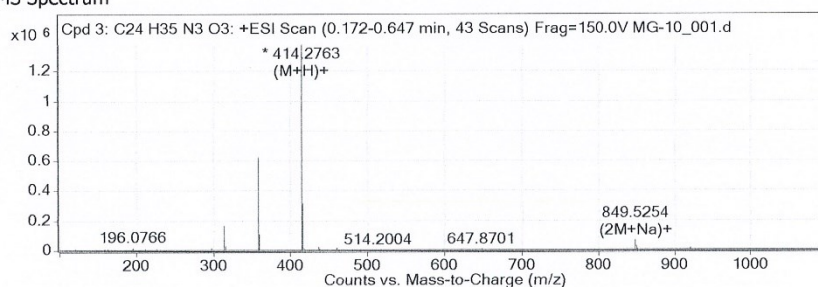
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| Data File              | MG-10_001.d | Sample Name   | MG-10               |
| Sample Type            | Sample      | Position      | Vial 16             |
| Instrument Name        | US10310002  | User Name     | TOF-PC\admin        |
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| IRM Calibration Status | Success     | DA Method     | Damijana.m          |
| Comment                |             |               |                     |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 3: C24 H35 N3 O3 | 414.2762 | 0.234 | Find by Molecular Feature | 413.2694 |

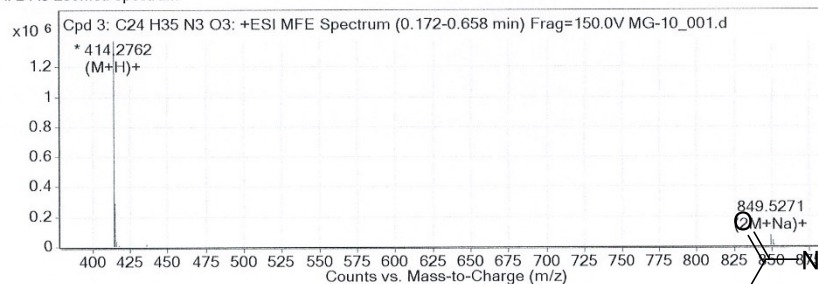
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 414.2762 | 414.2765      | 0.2        | C26 H38 O4      | (M+H)+     |      |
| 414.2762 | 414.277       | 0.8        | C11 H34 N12 O5  | (M+H)+     |      |
| 414.2762 | 414.2751      | -1.1       | C24 H36 N3 O3   | (M+H)+     | ✓    |
| 414.2762 | 414.2778      | 1.6        | C27 H34 N4      | (M+H)+     |      |
| 452.2316 | 452.2297      | -1.9       | C22 H33 K N6 O2 | (M+K)+     |      |
| 414.2762 | 414.2783      | 2.1        | C12 H30 N16 O   | (M+H)+     |      |
| 414.2762 | 414.2783      | 2.1        | C13 H36 N9 O6   | (M+H)+     |      |

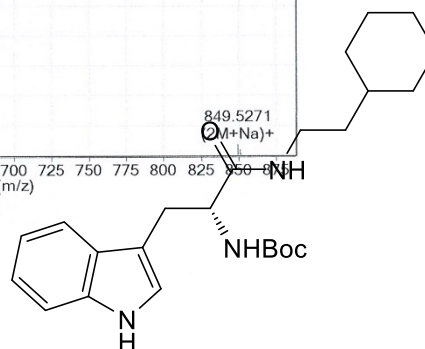
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**tert-Butyl (S)-1-((2-cyclohexylethyl)amino)-3-(1-methyl-1H-indol-3-yl)-1-oxopropan-2-yl)carbamate (10)**

## Qualitative Compound Report

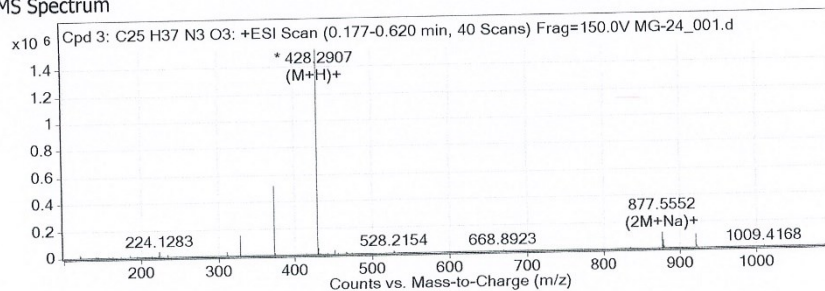
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|-------------------------------|-------------|----------------------|-----------------------|
| <b>Data File</b>              | MG-24_001.d | <b>Sample Name</b>   | MG-24                 |
| <b>Sample Type</b>            | Sample      | <b>Position</b>      | Vial 12               |
| <b>Instrument Name</b>        | US10310002  | <b>User Name</b>     | TOF-PC\admin          |
| <b>Acq Method</b>             | Bypass.m    | <b>Acquired Time</b> | 5/25/2017 10:27:50 AM |
| <b>IRM Calibration Status</b> | Success     | <b>DA Method</b>     | Damijana.m            |
| <b>Comment</b>                |             |                      |                       |

| Compound Label       | m/z     | RT    | Algorithm                 | Mass     |
|----------------------|---------|-------|---------------------------|----------|
| Cpd 3: C25 H37 N3 O3 | 428.291 | 0.237 | Find by Molecular Feature | 427.2836 |

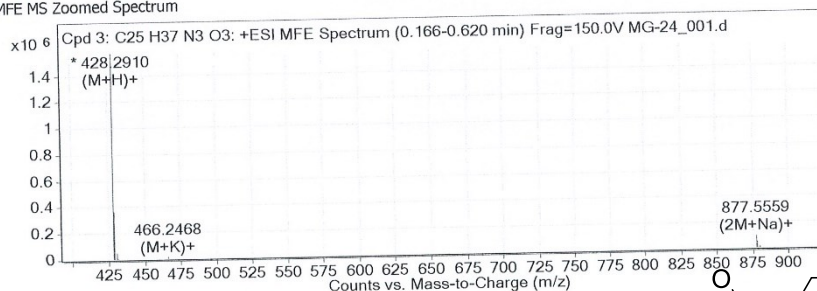
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula        | IonSpecies | Best |
|----------|---------------|------------|-------------------|------------|------|
| 428.291  | 428.2908      | -0.2       | C25 H38 N3 O3     | (M+H)+     | ✓    |
| 893.5358 | 893.5355      | -0.3       | C56 H70 K N8      | (2M+K)+    |      |
| 893.5358 | 893.5365      | 0.7        | C26 H62 K N32 O2  | (2M+K)+    |      |
| 893.5358 | 893.5365      | 0.7        | C28 H74 K N18 O12 | (2M+K)+    |      |
| 428.291  | 428.2921      | 1.1        | C27 H40 O4        | (M+H)+     |      |
| 428.291  | 428.2894      | -1.6       | C23 H36 N6 O2     | (M+H)+     |      |
| 428.291  | 428.2926      | 1.6        | C12 H36 N12 O5    | (M+H)+     |      |

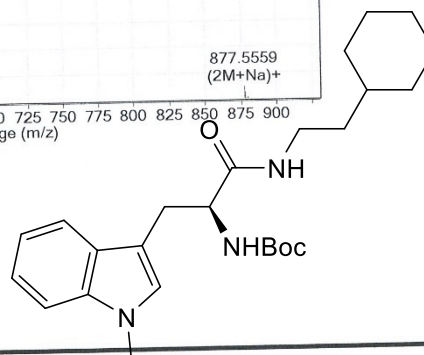
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**tert-Butyl ((S)-1-((2-((R)-2,2-dimethyl-3-methylenecyclopentyl)ethyl)amino)-3-(1-methyl-1H-indol-3-yl)-1-oxopropan-2-yl)carbamate (11)**

## Qualitative Compound Report

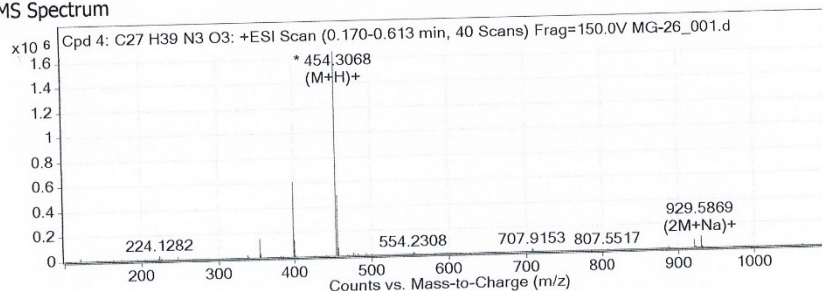
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|-------------------------------|-------------|----------------------|----------------------|
| <b>Data File</b>              | MG-26_001.d | <b>Sample Name</b>   | MG-26                |
| <b>Sample Type</b>            | Sample      | <b>Position</b>      | Vial 12              |
| <b>Instrument Name</b>        | US10310002  | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m    | <b>Acquired Time</b> | 5/30/2017 2:01:11 PM |
| <b>IRM Calibration Status</b> | Success     | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |             |                      |                      |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 4: C27 H39 N3 O3 | 454.3068 | 0.237 | Find by Molecular Feature | 453.2997 |

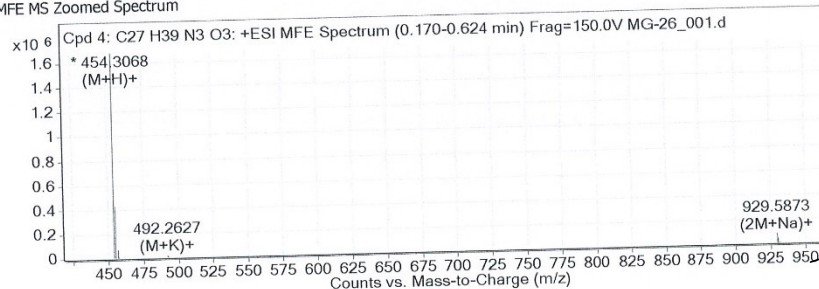
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 454.3068 | 454.3064      | -0.4       | C27 H40 N3 O3   | (M+H)+     | ✓    |
| 454.3068 | 454.3078      | 1          | C29 H42 O4      | (M+H)+     |      |
| 454.3068 | 454.3083      | 1.5        | C13 H32 N19     | (M+H)+     |      |
| 454.3068 | 454.3083      | 1.5        | C14 H38 N12 O5  | (M+H)+     |      |
| 454.3068 | 454.3051      | -1.7       | C25 H38 N6 O2   | (M+H)+     |      |
| 492.2627 | 492.265       | 2.2        | C30 H37 K N4    | (M+K)+     |      |
| 492.2627 | 492.2655      | 2.7        | C15 H33 K N16 O | (M+K)+     |      |

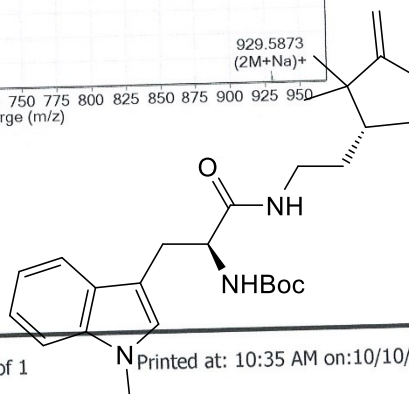
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



***tert*-Butyl ((*R*)-1-((2-((*R*)-2,2-dimethyl-3-methylenecyclopentyl)ethyl)amino)-3-(1-methyl-1*H*-indol-3-yl)-1-oxopropan-2-yl)carbamate (12)**

## Qualitative Compound Report

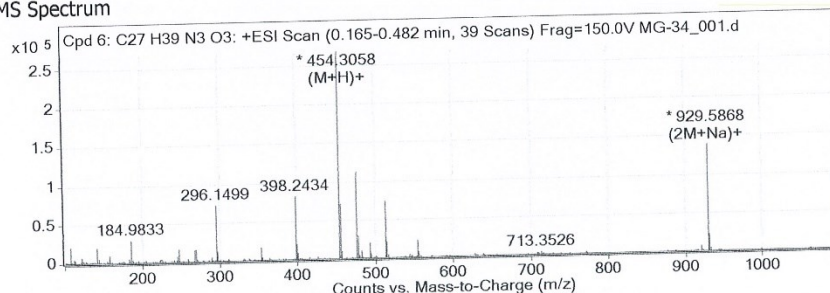
|                               |             |                      |                      |
|-------------------------------|-------------|----------------------|----------------------|
| <b>Data File</b>              | MG-34_001.d | <b>Sample Name</b>   | MG-34                |
| <b>Sample Type</b>            | Sample      | <b>Position</b>      | Vial 4               |
| <b>Instrument Name</b>        | US10310002  | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m    | <b>Acquired Time</b> | 8/3/2017 10:28:19 AM |
| <b>IRM Calibration Status</b> | Success     | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |             |                      |                      |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 6: C27 H39 N3 O3 | 454.3048 | 0.234 | Find by Molecular Feature | 453.3007 |

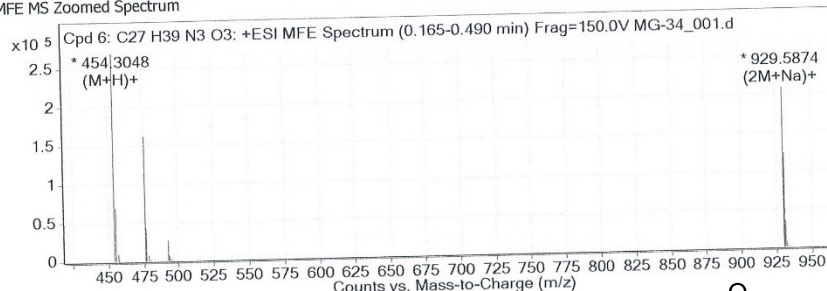
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula        | IonSpecies | Best |
|----------|---------------|------------|-------------------|------------|------|
| 454.3048 | 454.3051      | 0.3        | C25 H38 N6 O2     | (M+H)+     |      |
| 492.2639 | 492.265       | 1.1        | C30 H37 K N4      | (M+K)+     |      |
| 454.3048 | 454.3037      | -1.1       | C24 H42 N2 O6     | (M+H)+     |      |
| 454.3048 | 454.3037      | -1.1       | C23 H36 N9 O      | (M+H)+     |      |
| 454.3048 | 454.3064      | 1.6        | C27 H40 N3 O3     | (M+H)+     | ✓    |
| 492.2639 | 492.2655      | 1.6        | C15 H33 K N16 O   | (M+K)+     |      |
| 492.2639 | 492.2655      | 1.6        | C16 H39 K N9 O6   | (M+K)+     |      |
| 476.2877 | 476.2897      | 2          | C29 H41 Na O4     | (M+Na)+    |      |
| 476.2877 | 476.2902      | 2.5        | C13 H31 N19 Na    | (M+Na)+    |      |
| 476.2877 | 476.2902      | 2.5        | C14 H37 N12 Na O5 | (M+Na)+    |      |

### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---

**(R)-1-((2-Cyclohexylethyl)amino)-3-(1*H*-indol-3-yl)-1-oxopropan-2-aminium  
trifluoroacetate (13)**

**2,2,2-**

## Qualitative Compound Report

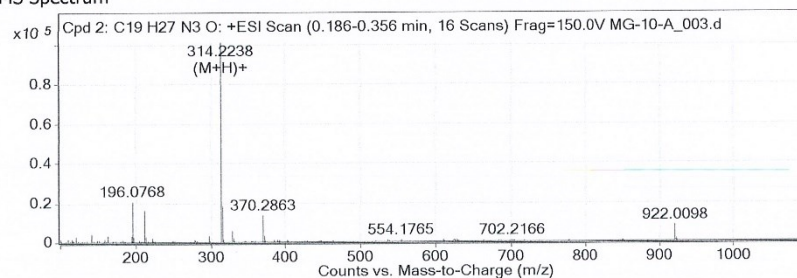
|                               |               |                      |                     |
|-------------------------------|---------------|----------------------|---------------------|
| <b>Data File</b>              | MG-10-A_003.d | <b>Sample Name</b>   | MG-10-A             |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | 13                  |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin        |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 8/9/2016 2:45:25 PM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m          |
| <b>Comment</b>                |               |                      |                     |

| Compound Label      | m/z      | RT    | Algorithm                 | Mass     |
|---------------------|----------|-------|---------------------------|----------|
| Cpd 2: C19 H27 N3 O | 314.2242 | 0.234 | Find by Molecular Feature | 313.2169 |

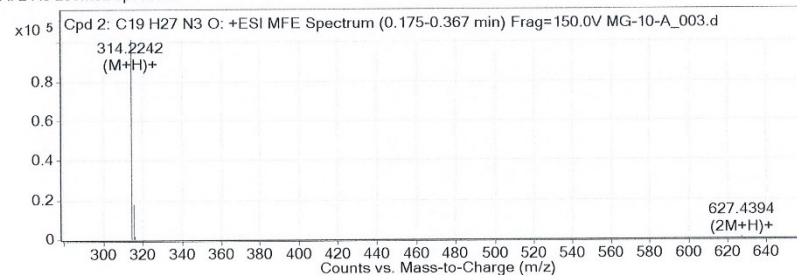
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula   | IonSpecies | Best |
|----------|---------------|------------|--------------|------------|------|
| 314.2242 | 314.224       | -0.1       | C21 H30 O2   | (M+H)+     |      |
| 314.2242 | 314.2227      | -1.5       | C19 H28 N3 O | (M+H)+     | ✓    |
| 314.2242 | 314.2259      | 1.7        | C8 H28 N9 O4 | (M+H)+     |      |

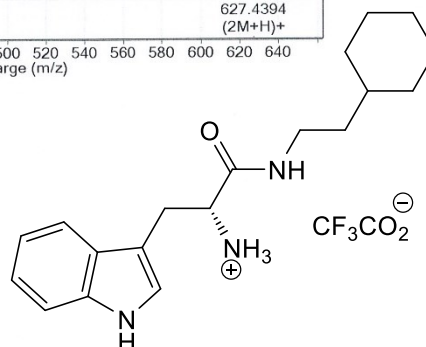
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**(S)-3-(1-Methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-aminium 2,2,2-trifluoroacetate (14)**

## Qualitative Compound Report

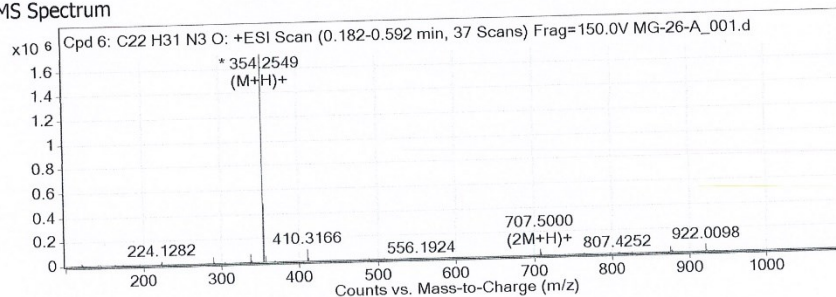
|                               |               |                      |                      |
|-------------------------------|---------------|----------------------|----------------------|
| <b>Data File</b>              | MG-26-A_001.d | <b>Sample Name</b>   | MG-26-A              |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 11              |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 5/30/2017 1:58:56 PM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |               |                      |                      |

| Compound Label      | m/z      | RT    | Algorithm                 | Mass    |
|---------------------|----------|-------|---------------------------|---------|
| Cpd 6: C22 H31 N3 O | 354.2541 | 0.236 | Find by Molecular Feature | 353.246 |

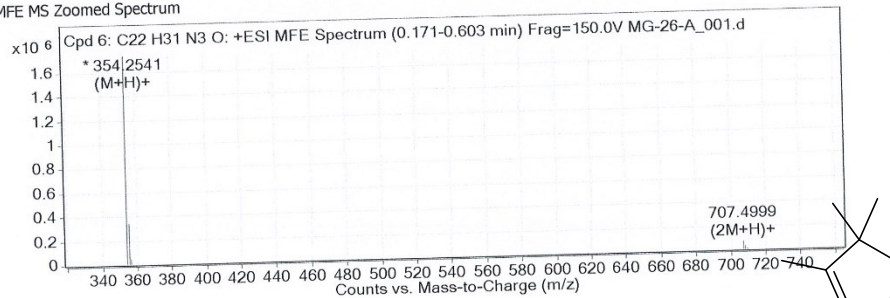
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula   | IonSpecies | Best |
|----------|---------------|------------|--------------|------------|------|
| 354.2541 | 354.254       | -0.2       | C22 H32 N3 O | (M+H)+     | ✓    |
| 354.2541 | 354.2553      | 1.2        | C24 H34 O2   | (M+H)+     |      |
| 354.2541 | 354.2526      | -1.5       | C20 H30 N6   | (M+H)+     |      |

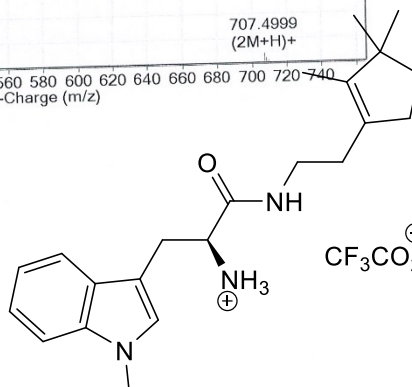
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**(R)-3-(1-Methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-aminium 2,2,2-trifluoroacetate (15)**

## Qualitative Compound Report

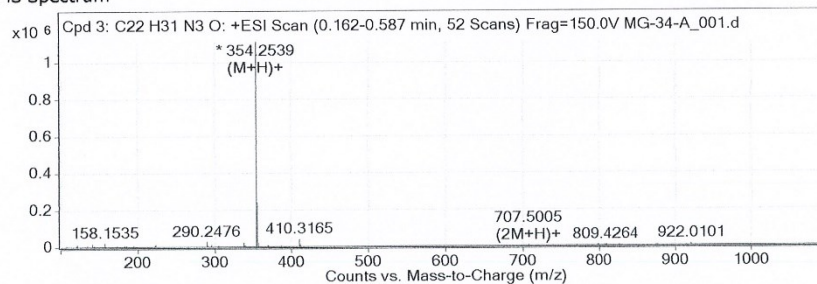
|                               |               |                      |                      |
|-------------------------------|---------------|----------------------|----------------------|
| <b>Data File</b>              | MG-34-A_001.d | <b>Sample Name</b>   | MG-34-A              |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 5               |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 8/3/2017 10:41:44 AM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |               |                      |                      |

| Compound Label      | m/z      | RT    | Algorithm                 | Mass     |
|---------------------|----------|-------|---------------------------|----------|
| Cpd 3: C22 H31 N3 O | 354.2535 | 0.233 | Find by Molecular Feature | 353.2463 |

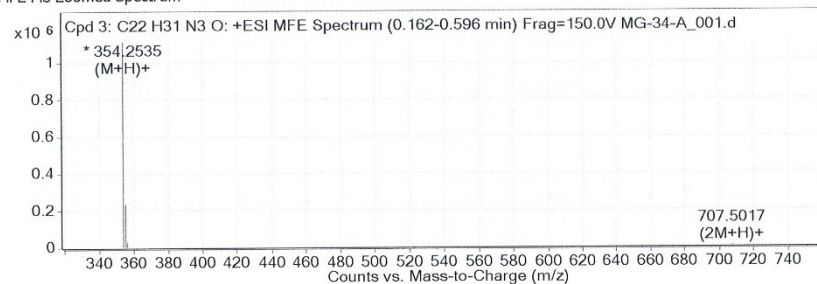
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula       | IonSpecies | Best |
|----------|---------------|------------|------------------|------------|------|
| 354.2535 | 354.254       |            | 0.5 C22 H32 N3 O | (M+H)+     | ✓    |
| 354.2535 | 354.2526      | -0.9       | C20 H30 N6       | (M+H)+     |      |
| 376.2358 | 376.2373      | 1.5        | C24 H33 Na O2    | (M+Na)+    |      |

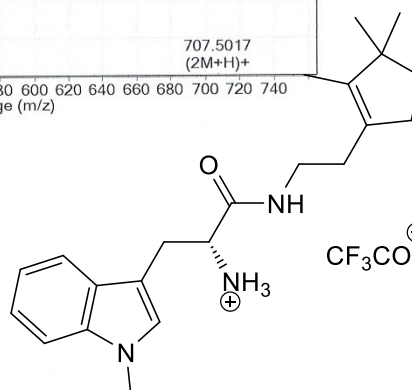
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**(R)-2-Acetamido-N-(2-cyclohexylethyl)-3-(1H-indol-3-yl)propanamide (19)**

## Qualitative Compound Report

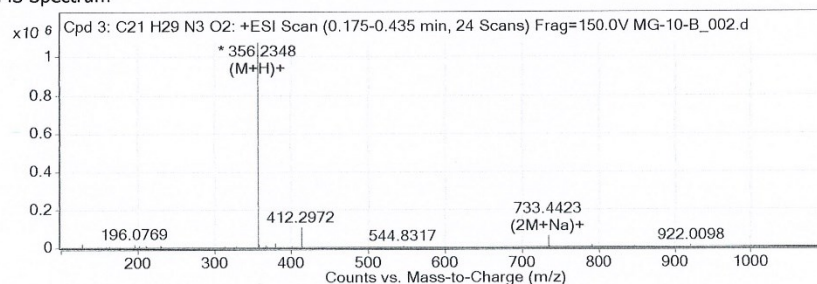
|                        |               |               |                     |
|------------------------|---------------|---------------|---------------------|
| Data File              | MG-10-B_002.d | Sample Name   | MG-10-B             |
| Sample Type            | Sample        | Position      | Vial 15             |
| Instrument Name        | US10310002    | User Name     | TOF-PC\admin        |
| Acq Method             | Bypass.m      | Acquired Time | 8/9/2016 2:40:08 PM |
| IRM Calibration Status | Success       | DA Method     | Damijana.m          |
| Comment                |               |               |                     |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 3: C21 H29 N3 O2 | 356.2347 | 0.234 | Find by Molecular Feature | 355.2262 |

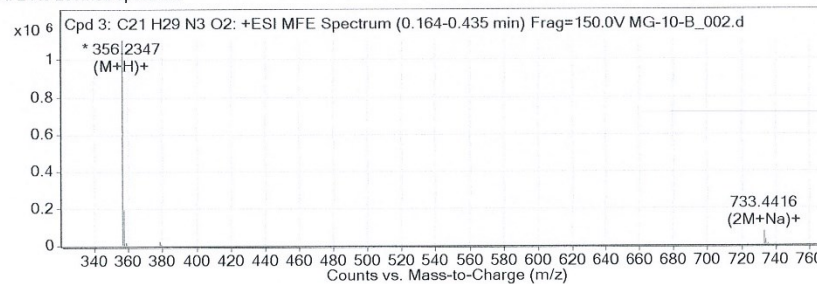
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula    | IonSpecies | Best |
|----------|---------------|------------|---------------|------------|------|
| 356.2347 | 356.2346      | -0.1       | C23 H32 O3    | (M+H)+     |      |
| 356.2347 | 356.2333      | -1.5       | C21 H30 N3 O2 | (M+H)+     | ✓    |
| 356.2347 | 356.2364      | 1.7        | C10 H30 N9 O5 | (M+H)+     |      |

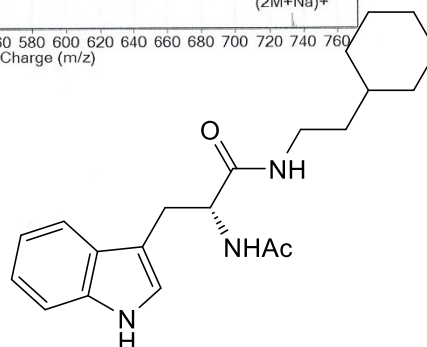
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**(R)-2-Acetamido-3-(1*H*-indol-3-yl)-*N*-(2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)propanamide (20)**

## Qualitative Compound Report

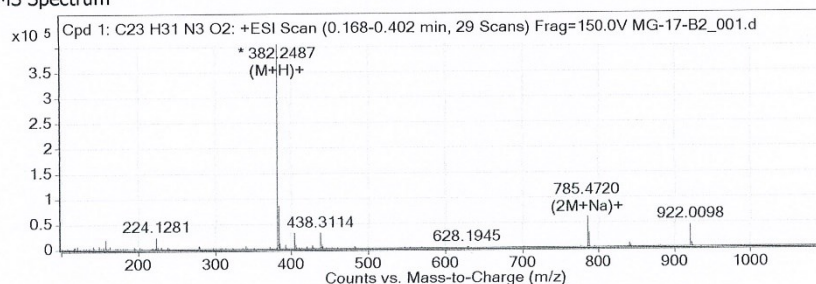
|                               |                |                      |                      |
|-------------------------------|----------------|----------------------|----------------------|
| <b>Data File</b>              | MG-17-B2_001.d | <b>Sample Name</b>   | MG-17-B2             |
| <b>Sample Type</b>            | Sample         | <b>Position</b>      | Vial 36              |
| <b>Instrument Name</b>        | US10310002     | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m       | <b>Acquired Time</b> | 3/21/2017 9:56:33 AM |
| <b>IRM Calibration Status</b> | Success        | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |                |                      |                      |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 1: C23 H31 N3 O2 | 382.2489 | 0.234 | Find by Molecular Feature | 381.2412 |

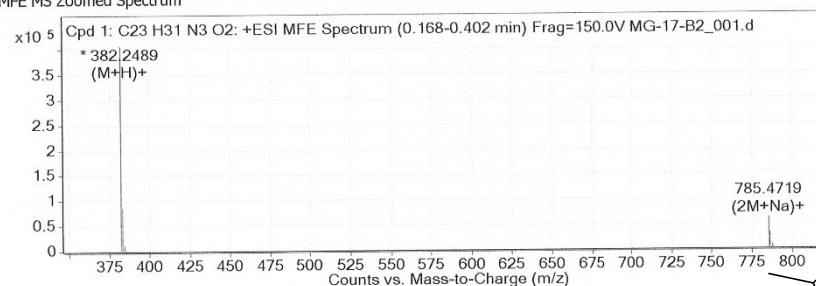
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 382.2489 | 382.2489      |            | 0 C23 H32 N3 O2 | (M+H)+     | ✓    |
| 382.2489 | 382.2476      | -1.3       | C21 H30 N6 O    | (M+H)+     |      |
| 382.2489 | 382.2502      | 1.4        | C25 H34 O3      | (M+H)+     |      |
| 382.2489 | 382.2507      | 1.9        | C10 H30 N12 O4  | (M+H)+     |      |

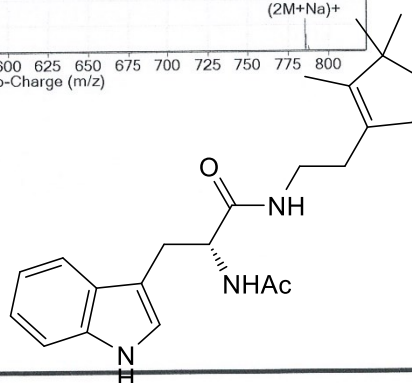
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**tert-Butyl (R)-(3-(1H-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (21)**

## Qualitative Compound Report

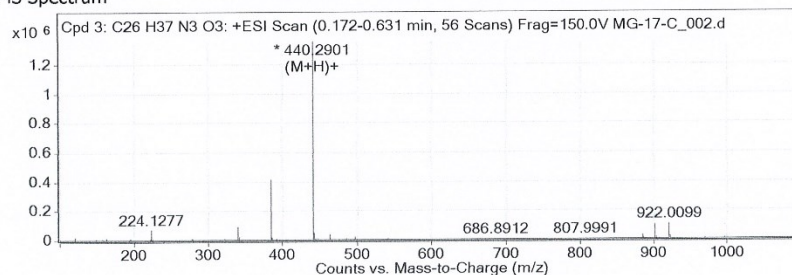
|                               |               |                      |                       |
|-------------------------------|---------------|----------------------|-----------------------|
| <b>Data File</b>              | MG-17-C_002.d | <b>Sample Name</b>   | MG-17-C               |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 3                |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin          |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 3/23/2017 11:43:52 AM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m            |
| <b>Comment</b>                |               |                      |                       |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 3: C26 H37 N3 O3 | 440.2903 | 0.236 | Find by Molecular Feature | 439.2834 |

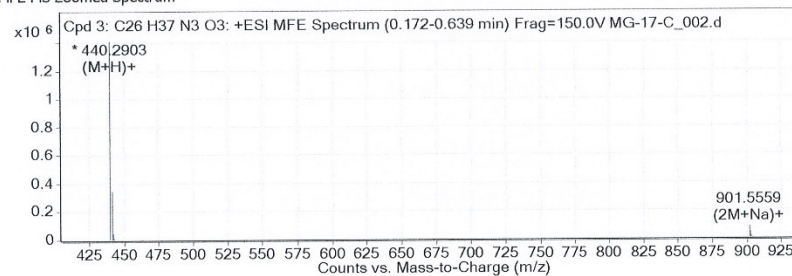
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula     | IonSpecies | Best |
|----------|---------------|------------|----------------|------------|------|
| 440.2903 | 440.2908      | 0.4        | C26 H38 N3 O3  | (M+H)+     | ✓    |
| 440.2903 | 440.2894      | -0.9       | C24 H36 N6 O2  | (M+H)+     |      |
| 440.2903 | 440.2921      | 1.8        | C28 H40 O4     | (M+H)+     |      |
| 440.2903 | 440.2926      | 2.3        | C13 H36 N12 O5 | (M+H)+     |      |

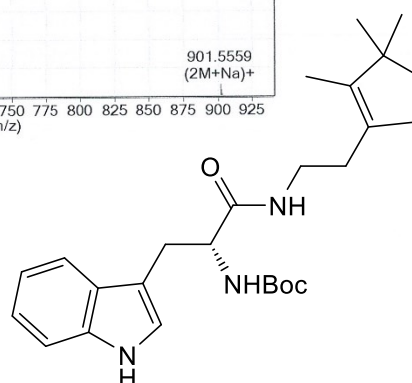
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



tert-Butyl

(R)-(3-(1H-indol-3-yl)-1-oxo-1-(((2,3,3-trimethylcyclopent-1-en-1-yl)methyl)amino)propan-2-yl)carbamate (22)

## Qualitative Compound Report

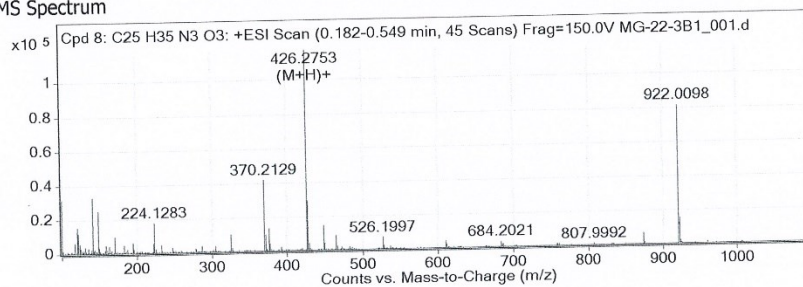
|                        |                 |               |                       |
|------------------------|-----------------|---------------|-----------------------|
| Data File              | MG-22-3B1_001.d | Sample Name   | MG-22-3B1             |
| Sample Type            | Sample          | Position      | Vial 31               |
| Instrument Name        | US10310002      | User Name     | TOF-PC\admin          |
| Acq Method             | Bypass.m        | Acquired Time | 5/18/2017 11:22:59 AM |
| IRM Calibration Status | Success         | DA Method     | Damijana.m            |
| Comment                |                 |               |                       |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 8: C25 H35 N3 O3 | 426.2751 | 0.237 | Find by Molecular Feature | 425.2681 |

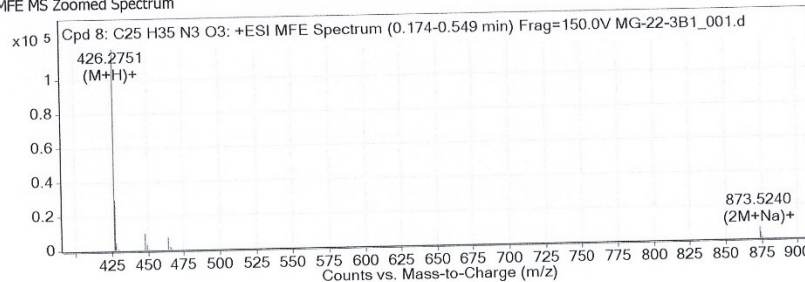
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 426.2751 | 426.2751      |            | 0 C25 H36 N3 O3 | (M+H)+     | ✓    |
| 426.2751 | 426.2738      | -1.3       | C23 H34 N6 O2   | (M+H)+     |      |
| 426.2751 | 426.2765      | 1.4        | C27 H38 O4      | (M+H)+     |      |
| 426.2751 | 426.277       | 1.9        | C12 H34 N12 O5  | (M+H)+     |      |

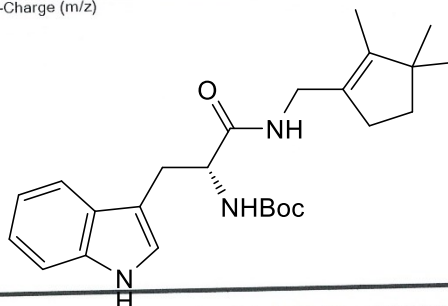
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



***tert*-Butyl (S)-(3-(1-methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (23)**

## Qualitative Compound Report

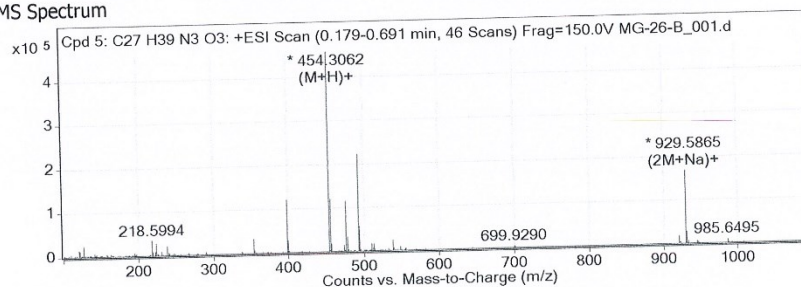
|                               |               |                      |                      |
|-------------------------------|---------------|----------------------|----------------------|
| <b>Data File</b>              | MG-26-B_001.d | <b>Sample Name</b>   | MG-26-B              |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 15              |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 6/1/2017 10:33:06 AM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |               |                      |                      |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 5: C27 H39 N3 O3 | 454.3068 | 0.234 | Find by Molecular Feature | 453.2985 |

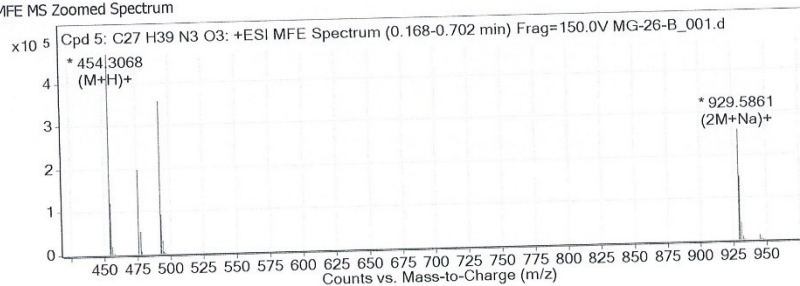
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula     | IonSpecies | Best |
|----------|---------------|------------|----------------|------------|------|
| 454.3068 | 454.3064      | -0.4       | C27 H40 N3 O3  | (M+H)+     | ✓    |
| 454.3068 | 454.3078      | 0.9        | C29 H42 O4     | (M+H)+     |      |
| 454.3068 | 454.3083      | 1.4        | C13 H32 N19    | (M+H)+     |      |
| 454.3068 | 454.3083      | 1.4        | C14 H38 N12 O5 | (M+H)+     |      |
| 454.3068 | 454.3051      | -1.7       | C25 H38 N6 O2  | (M+H)+     |      |
| 454.3068 | 454.3091      | 2.3        | C30 H38 N4     | (M+H)+     |      |

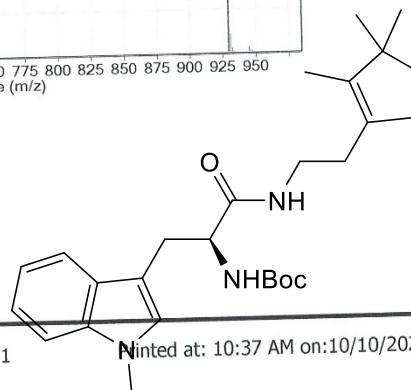
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



***tert*-Butyl (R)-(3-(1-methyl-1*H*-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopent-1-en-1-yl)ethyl)amino)propan-2-yl)carbamate (24)**

## Qualitative Compound Report

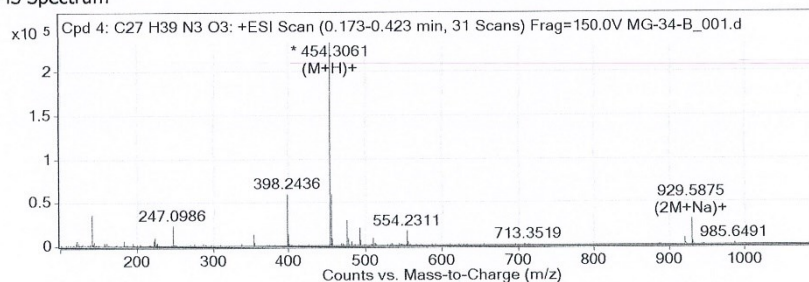
|                               |               |                      |                      |
|-------------------------------|---------------|----------------------|----------------------|
| <b>Data File</b>              | MG-34-B_001.d | <b>Sample Name</b>   | MG-34-B              |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 7               |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 8/8/2017 10:50:47 AM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |               |                      |                      |

| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 4: C27 H39 N3 O3 | 454.3067 | 0.234 | Find by Molecular Feature | 453.2996 |

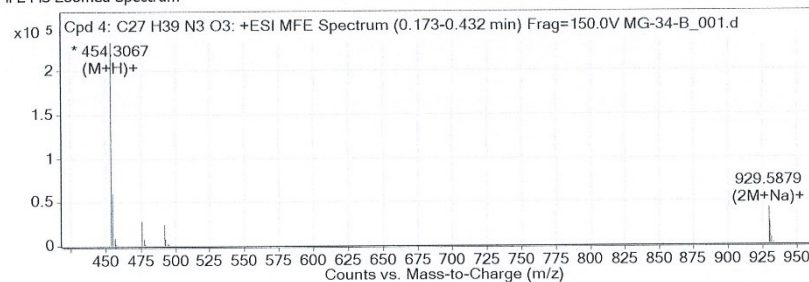
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 454.3067 | 454.3064      | -0.3       | C27 H40 N3 O3   | (M+H)+     | ✓    |
| 454.3067 | 454.3078      | 1          | C29 H42 O4      | (M+H)+     |      |
| 454.3067 | 454.3083      | 1.5        | C13 H32 N19     | (M+H)+     |      |
| 454.3067 | 454.3083      | 1.5        | C14 H38 N12 O5  | (M+H)+     |      |
| 454.3067 | 454.3051      | -1.7       | C25 H38 N6 O2   | (M+H)+     |      |
| 492.2631 | 492.265       | 1.9        | C30 H37 K N4    | (M+K)+     |      |
| 492.2631 | 492.2655      | 2.4        | C15 H33 K N16 O | (M+K)+     |      |
| 492.2631 | 492.2655      | 2.4        | C16 H39 K N9 O6 | (M+K)+     |      |

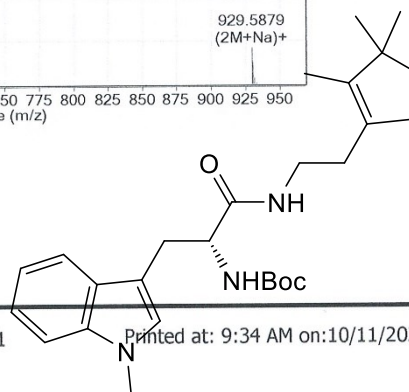
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



**2-(1*H*-Indol-3-yl)-*N*-(2-((1*R*,3*R*)-2,2,3-trimethylcyclopentyl)ethyl)acetamide (*cis*-27) and 2-(1*H*-indol-3-yl)-*N*-(2-((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)acetamide (*trans*-27)**

## Qualitative Compound Report

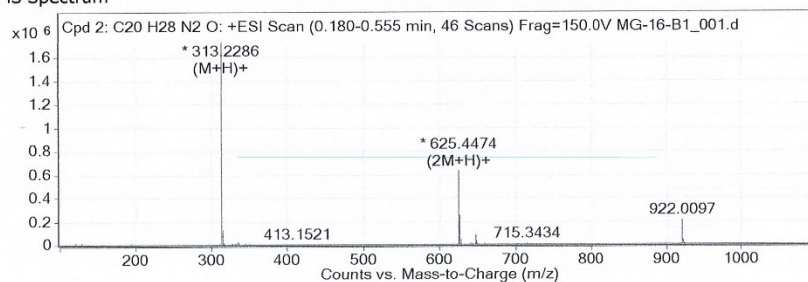
|                        |                |               |                        |
|------------------------|----------------|---------------|------------------------|
| Data File              | MG-16-B1_001.d | Sample Name   | MG-16-B1               |
| Sample Type            | Sample         | Position      | Vial 25                |
| Instrument Name        | US10310002     | User Name     | TOF-PC\admin           |
| Acq Method             | Bypass.m       | Acquired Time | 11/23/2016 10:48:01 AM |
| IRM Calibration Status | Success        | DA Method     | Damijana.m             |
| Comment                |                |               |                        |

| Compound Label      | <i>m/z</i> | RT    | Algorithm                 | Mass     |
|---------------------|------------|-------|---------------------------|----------|
| Cpd 2: C20 H28 N2 O | 313.2277   | 0.232 | Find by Molecular Feature | 312.2201 |

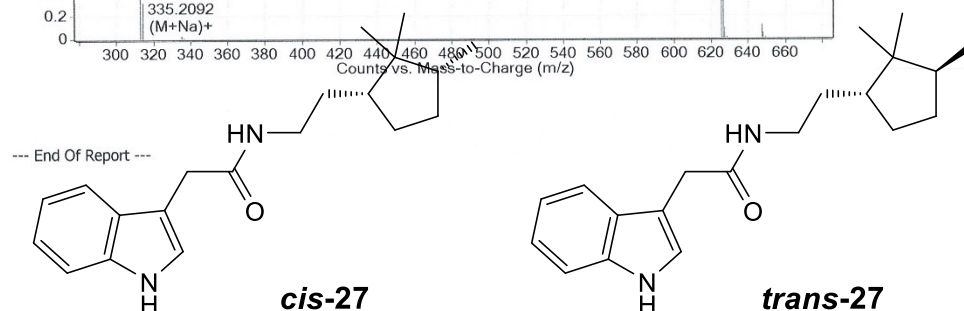
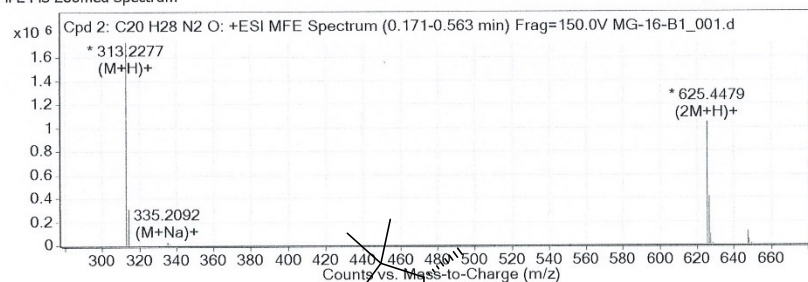
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula      | IonSpecies | Best |
|----------|---------------|------------|-----------------|------------|------|
| 313.2277 | 313.2274      | -0.3       | C20 H29 N2 O    | (M+H)+     | ✓    |
| 351.1861 | 351.1865      | 0.4        | C9 H28 K N8 O4  | (M+K)+     |      |
| 335.2092 | 335.208       | -1.1       | C18 H26 N5 Na   | (M+Na)+    |      |
| 351.1861 | 351.1878      | 1.8        | C10 H24 K N12   | (M+K)+     |      |
| 351.1861 | 351.1879      | 1.8        | C11 H30 K N5 O5 | (M+K)+     |      |

## MS Spectrum



## MFE MS Zoomed Spectrum



**tert-Butyl ((S)-3-(1-methyl-1H-indol-3-yl)-1-oxo-1-((2-(2,3,3-trimethylcyclopentyl)ethyl)-amino)propan-2-yl)carbamate (28)**

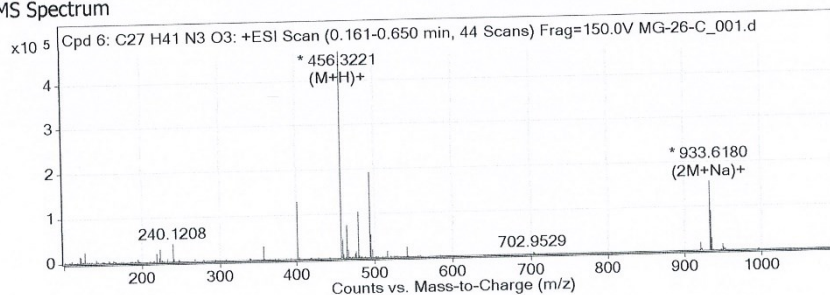
## Qualitative Compound Report

|                               |               |                      |                      |
|-------------------------------|---------------|----------------------|----------------------|
| <b>Data File</b>              | MG-26-C_001.d | <b>Sample Name</b>   | MG-26-C              |
| <b>Sample Type</b>            | Sample        | <b>Position</b>      | Vial 14              |
| <b>Instrument Name</b>        | US10310002    | <b>User Name</b>     | TOF-PC\admin         |
| <b>Acq Method</b>             | Bypass.m      | <b>Acquired Time</b> | 6/1/2017 10:29:17 AM |
| <b>IRM Calibration Status</b> | Success       | <b>DA Method</b>     | Damijana.m           |
| <b>Comment</b>                |               |                      |                      |

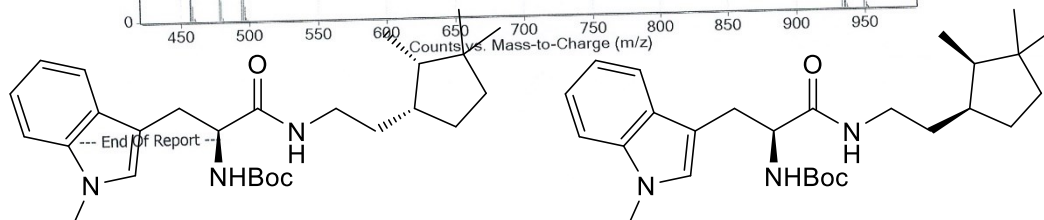
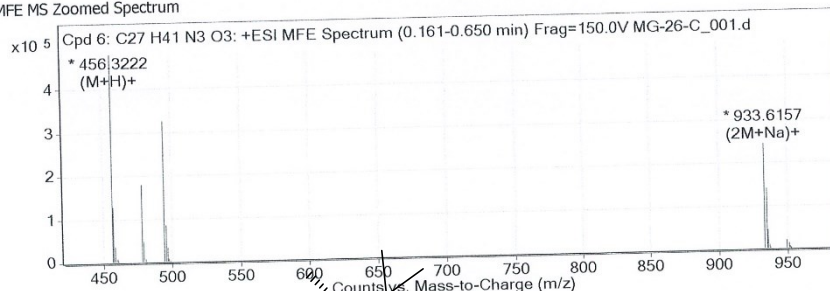
| Compound Label       | m/z      | RT    | Algorithm                 | Mass     |
|----------------------|----------|-------|---------------------------|----------|
| Cpd 6: C27 H41 N3 O3 | 456.3222 | 0.233 | Find by Molecular Feature | 455.3165 |

| Compound Identification Results |               |            |                |            |      |
|---------------------------------|---------------|------------|----------------|------------|------|
| Ion Mass                        | Calc Ion Mass | Difference | IonFormula     | IonSpecies | Best |
| 456.3222                        | 456.3221      | -0.1       | C27 H42 N3 O3  | (M+H)+     | ✓    |
| 456.3222                        | 456.3234      | 1.2        | C29 H44 O4     | (M+H)+     |      |
| 456.3222                        | 456.3207      | -1.5       | C25 H40 N6 O2  | (M+H)+     |      |
| 456.3222                        | 456.3239      | 1.7        | C13 H34 N19    | (M+H)+     |      |
| 456.3222                        | 456.3239      | 1.7        | C14 H40 N12 O5 | (M+H)+     |      |
| 456.3222                        | 456.3247      | 2.6        | C30 H40 N4     | (M+H)+     |      |
| 456.3222                        | 456.3253      | 3.1        | C16 H42 N9 O6  | (M+H)+     |      |
| 456.3222                        | 456.3253      | 3.1        | C15 H36 N16 O  | (M+H)+     |      |

MS Spectrum



MFE MS Zoomed Spectrum



***N*-(2-((1*R*,3*R*)-2,2,3-Trimethylcyclopentyl)ethyl)-4,5,6,7-tetrahydro-1*H*-indole-2-carboxamide (*cis*-29) and *N*-(2-((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)-4,5,6,7-tetrahydro-1*H*-indole-2-carboxamide (*trans*-29)**

## Qualitative Compound Report

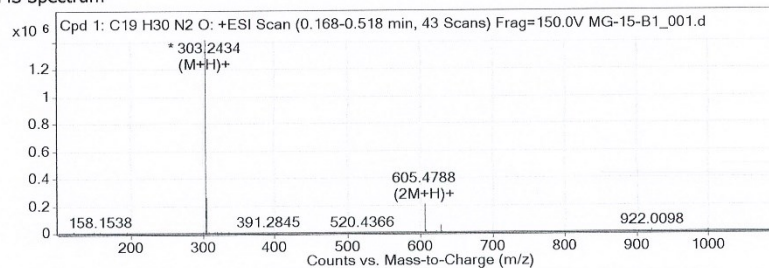
|                               |                |                      |                        |
|-------------------------------|----------------|----------------------|------------------------|
| <b>Data File</b>              | MG-15-B1_001.d | <b>Sample Name</b>   | MG-15-B1               |
| <b>Sample Type</b>            | Sample         | <b>Position</b>      | Vial 12                |
| <b>Instrument Name</b>        | US10310002     | <b>User Name</b>     | TOF-PC\admin           |
| <b>Acq Method</b>             | Bypass.m       | <b>Acquired Time</b> | 11/10/2016 10:28:54 AM |
| <b>IRM Calibration Status</b> | Success        | <b>DA Method</b>     | Damijana.m             |
| <b>Comment</b>                |                |                      |                        |

| Compound Label      | m/z      | RT    | Algorithm                 | Mass     |
|---------------------|----------|-------|---------------------------|----------|
| Cpd 1: C19 H30 N2 O | 303.2429 | 0.234 | Find by Molecular Feature | 302.2358 |

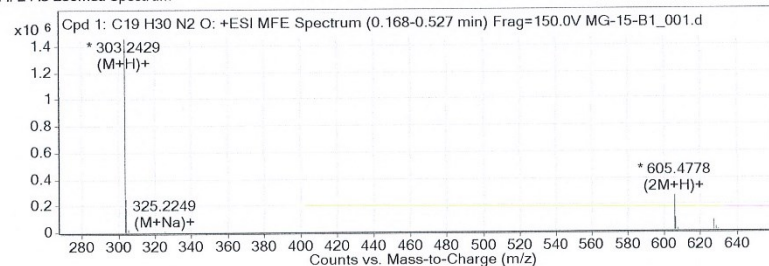
### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula   | IonSpecies | Best |
|----------|---------------|------------|--------------|------------|------|
| 303.2429 | 303.2431      | 0.2        | C19 H31 N2 O | (M+H)+     | ✓    |
| 303.2429 | 303.2417      | -1.2       | C17 H29 N5   | (M+H)+     |      |

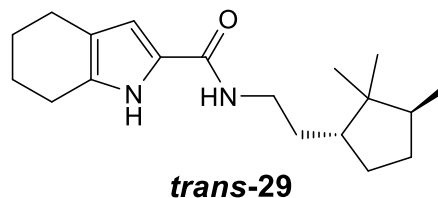
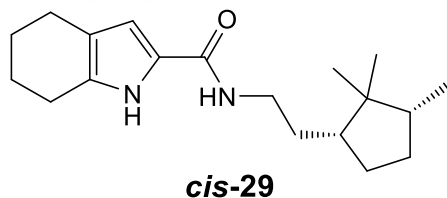
### MS Spectrum



### MFE MS Zoomed Spectrum



--- End Of Report ---



***N*-(2-((1*R*,3*R*)-2,2,3-Trimethylcyclopentyl)ethyl)octahydro-1*H*-indole-2-carboxamide (*cis*-30) and *N*-(2-((1*R*,3*S*)-2,2,3-trimethylcyclopentyl)ethyl)octahydro-1*H*-indole-2-carboxamide (*trans*-30)**

## Qualitative Compound Report

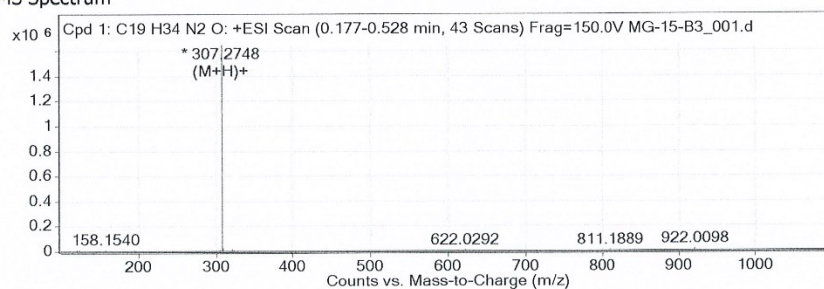
|                               |                |                      |                        |
|-------------------------------|----------------|----------------------|------------------------|
| <b>Data File</b>              | MG-15-B3_001.d | <b>Sample Name</b>   | MG-15-B3               |
| <b>Sample Type</b>            | Sample         | <b>Position</b>      | Vial 11                |
| <b>Instrument Name</b>        | US10310002     | <b>User Name</b>     | TOF-PC\admin           |
| <b>Acq Method</b>             | Bypass.m       | <b>Acquired Time</b> | 11/10/2016 10:24:33 AM |
| <b>IRM Calibration Status</b> | Success        | <b>DA Method</b>     | Damijana.m             |
| <b>Comment</b>                |                |                      |                        |

| Compound Label                                          | m/z      | RT    | Algorithm                 | Mass     |
|---------------------------------------------------------|----------|-------|---------------------------|----------|
| Cpd 1: C <sub>19</sub> H <sub>34</sub> N <sub>2</sub> O | 307.2751 | 0.234 | Find by Molecular Feature | 306.2677 |

### Compound Identification Results

| Ion Mass | Calc Ion Mass | Difference | IonFormula                                        | IonSpecies | Best |
|----------|---------------|------------|---------------------------------------------------|------------|------|
| 329.2555 | 329.255       | -0.6       | C <sub>17</sub> H <sub>32</sub> N <sub>5</sub> Na | (M+Na)+    |      |
| 307.2751 | 307.2744      | -0.7       | C <sub>19</sub> H <sub>35</sub> N <sub>2</sub> O  | (M+H)+     | ✓    |

### MS Spectrum



### MFE MS Zoomed Spectrum

