

Supporting Information for

Design, Synthesis and Antiproliferative Evaluation of Tetrahydro- β -carboline Histone Deacetylase Inhibitors Bearing an Aliphatic Chain Linker

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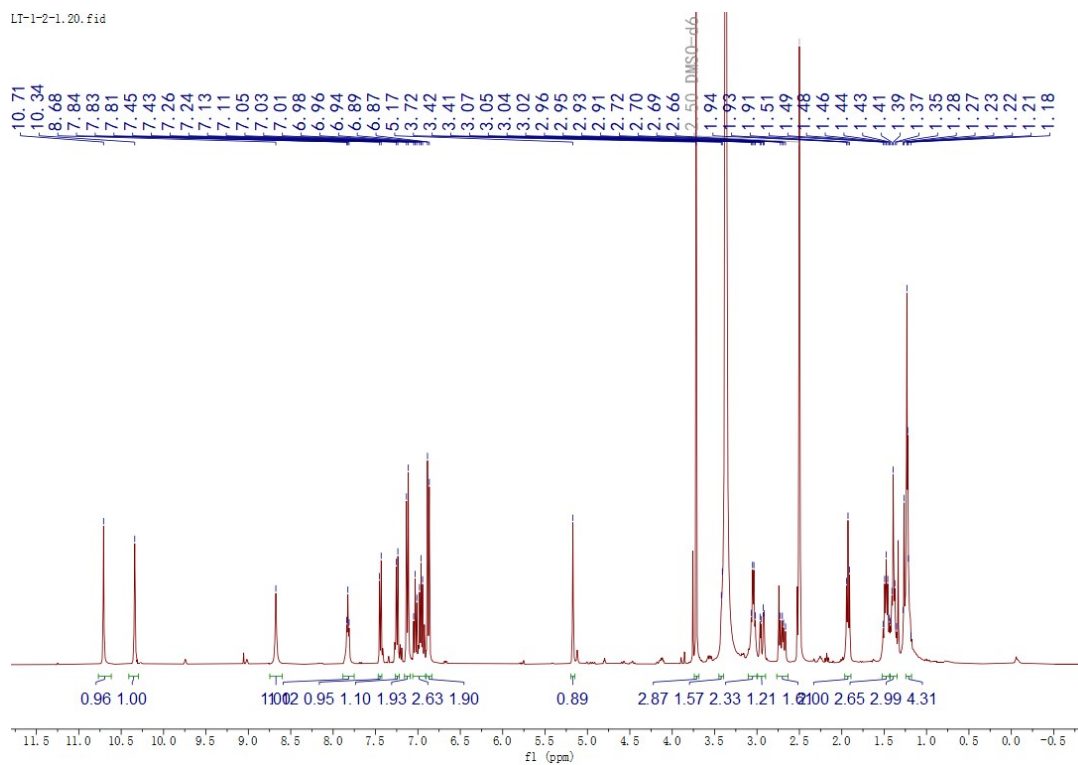
*Xin Chen

E-mail: chenxin1888@nwsuaf.edu.cn; Fax: +87-029-87092335

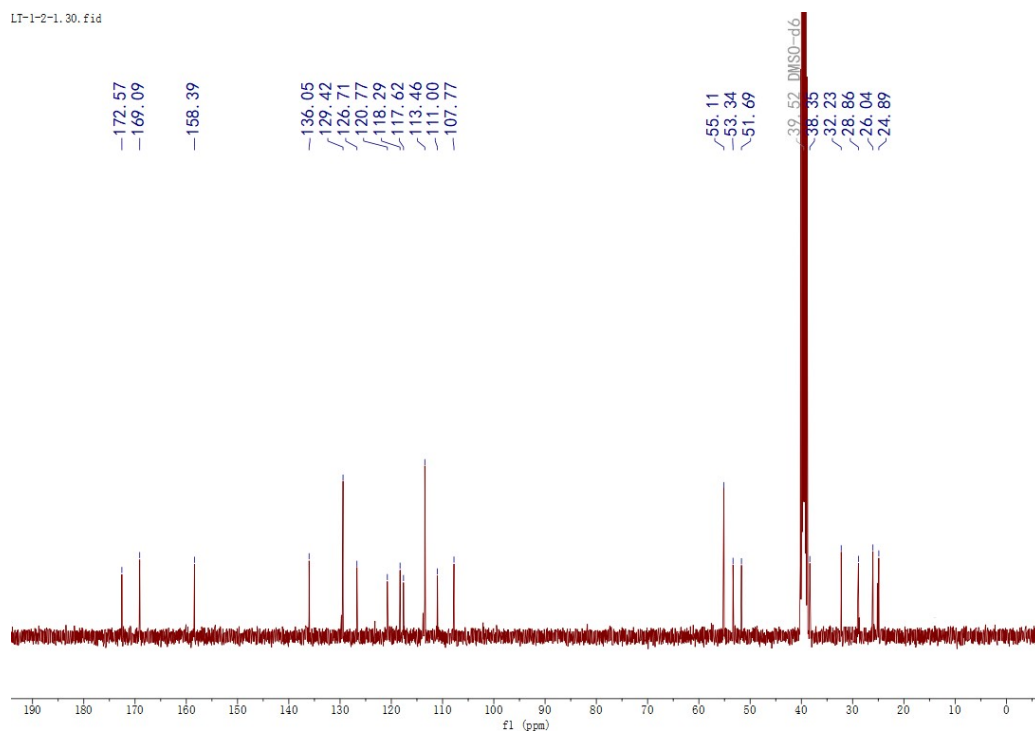
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(1*R*, 3*S*)-*N*-(6-(hydroxyamino)-6-oxohexyl)-1-(4-methoxyphenyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9b**)

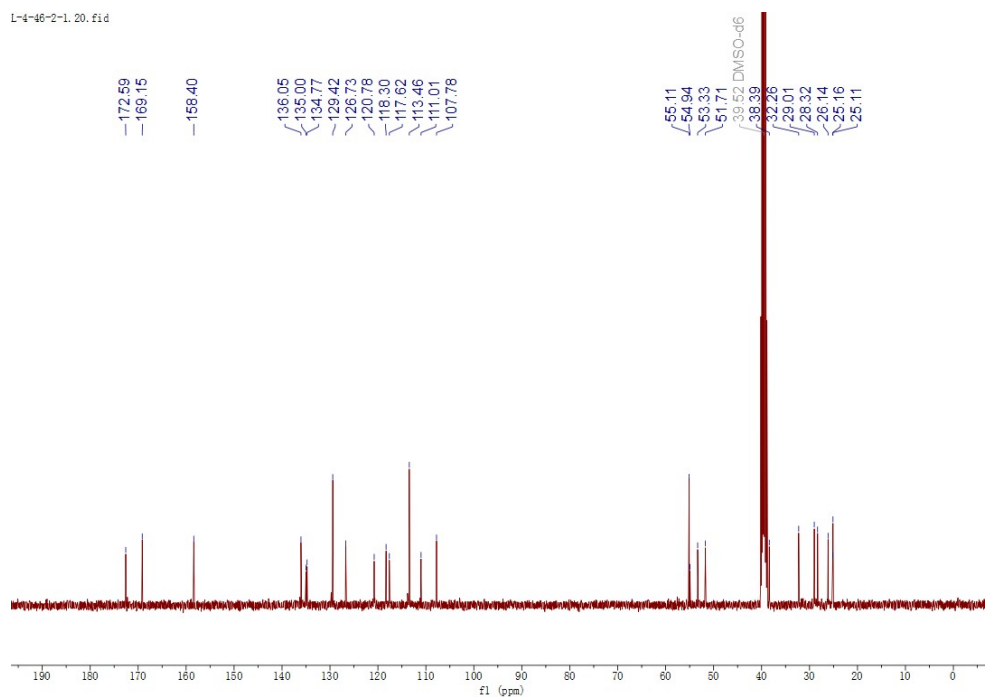
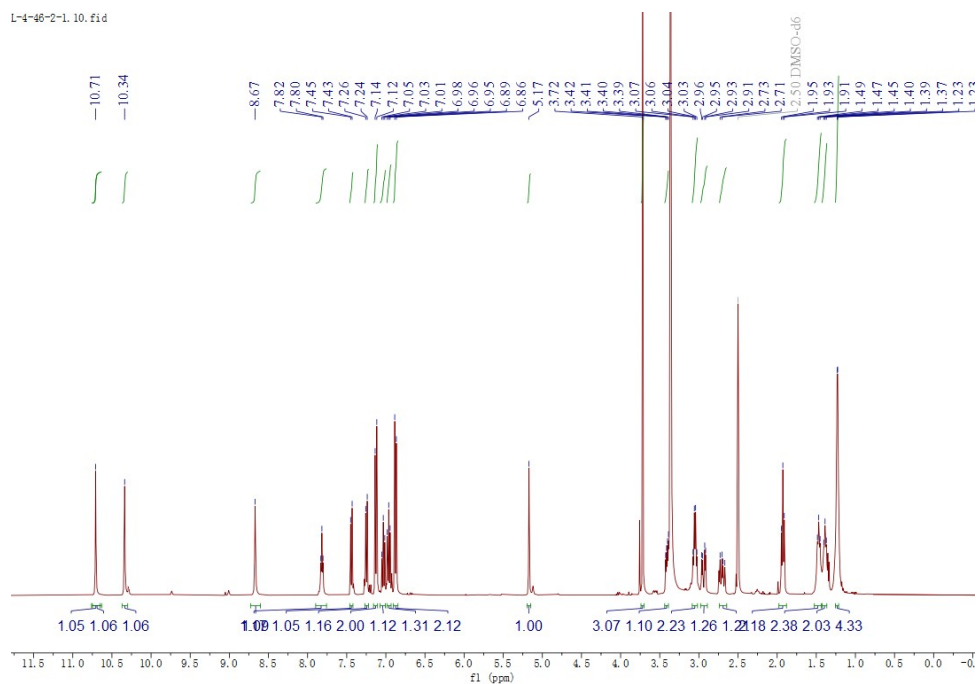
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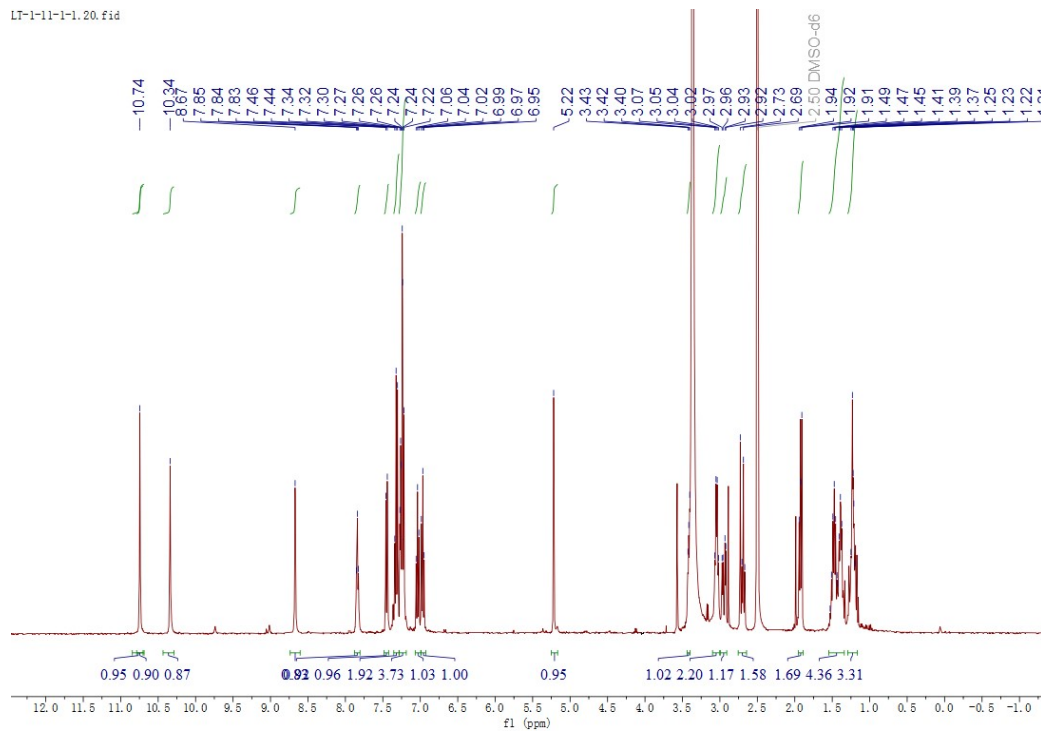


(1*R*, 3*S*)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-1-(4-methoxyphenyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9c**)

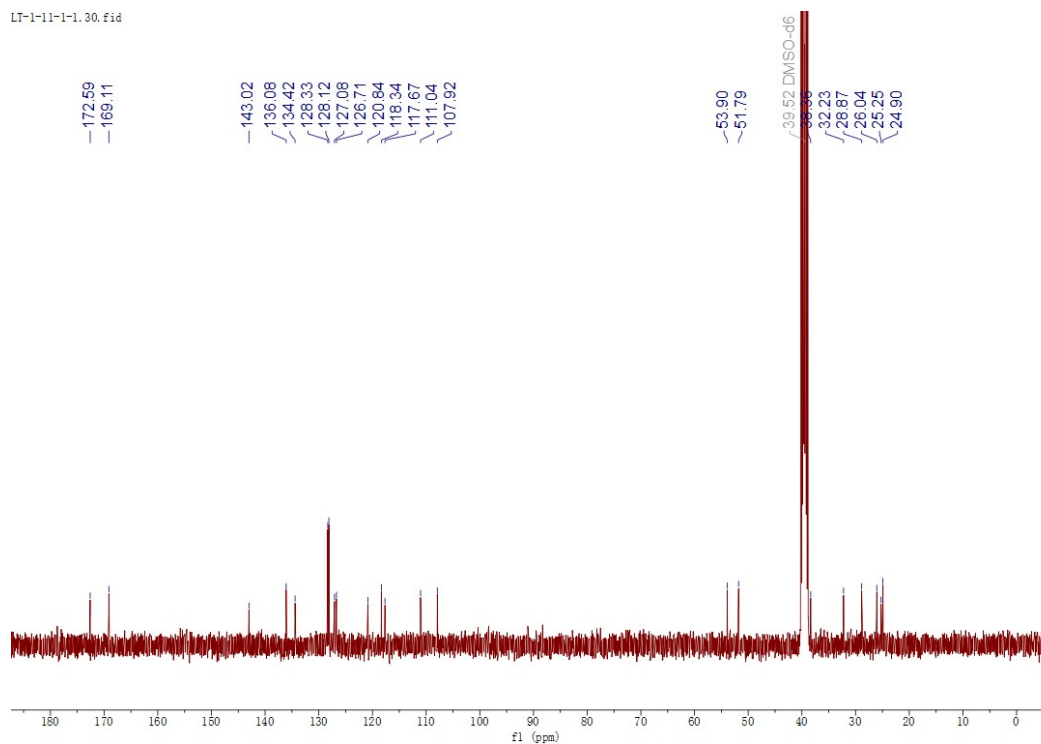


(1*R*, 3*S*)-*N*-(6-(hydroxyamino)-6-oxohexyl)-1-phenyl-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9d**)

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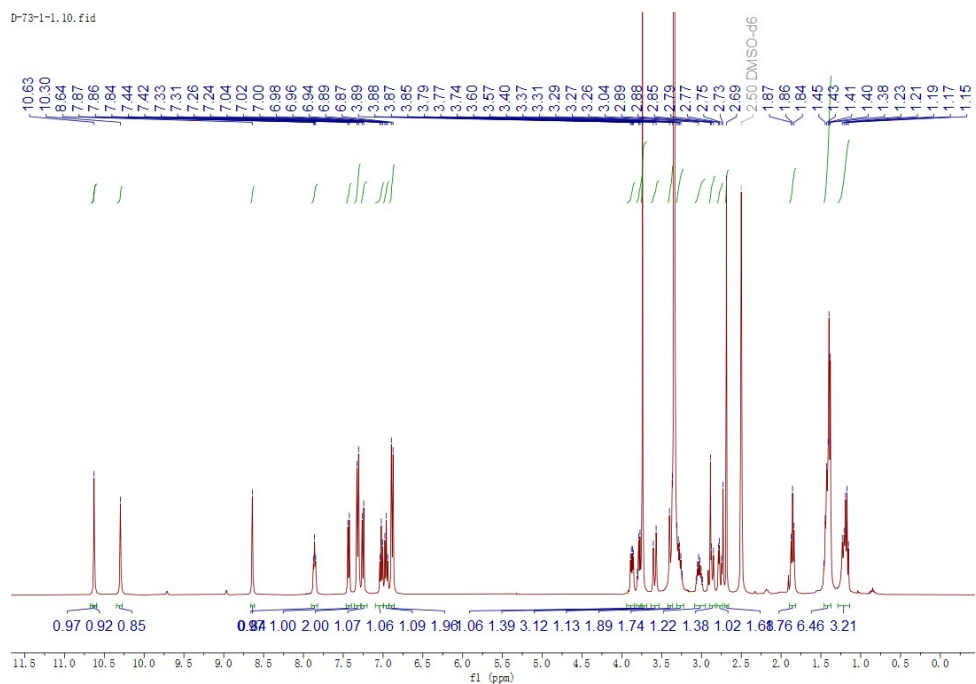


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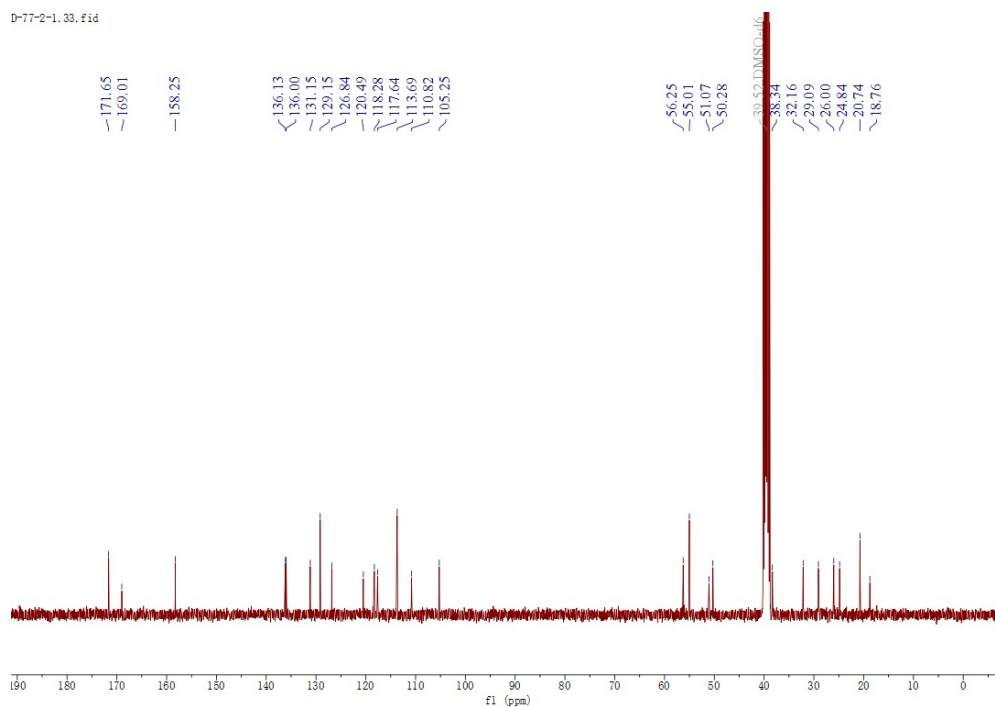


(1*R*, 3*S*)-*N*-(6-(hydroxyamino)-6-oxohexyl)-2-(4-methoxybenzyl)-1-methyl-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9e**)

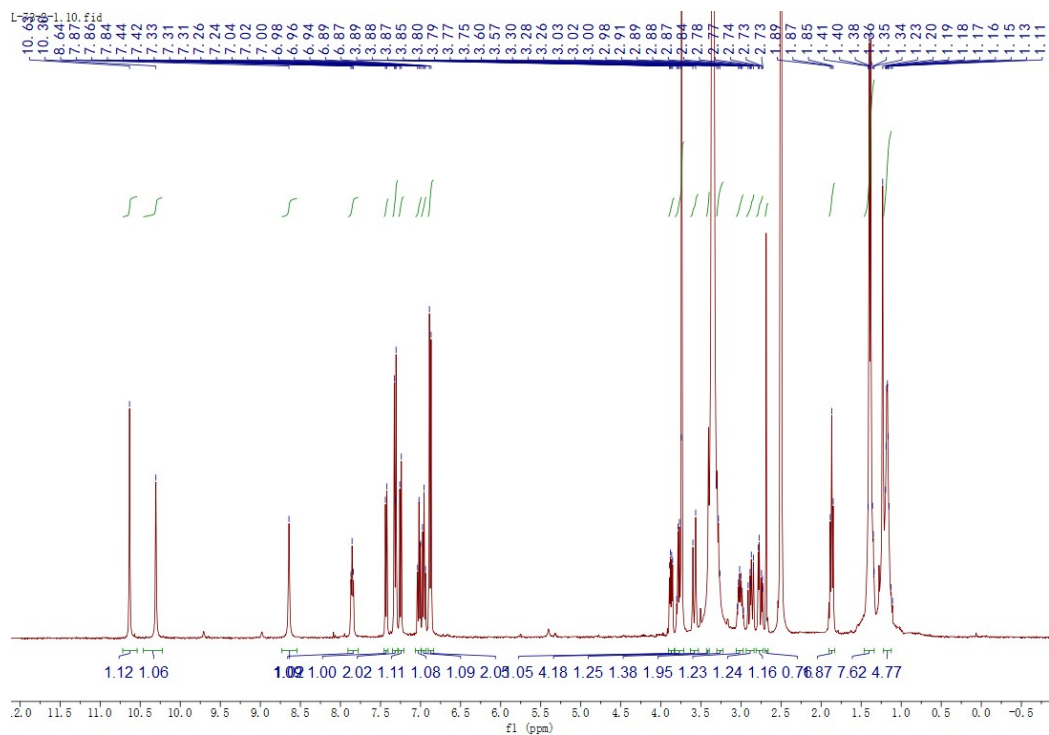
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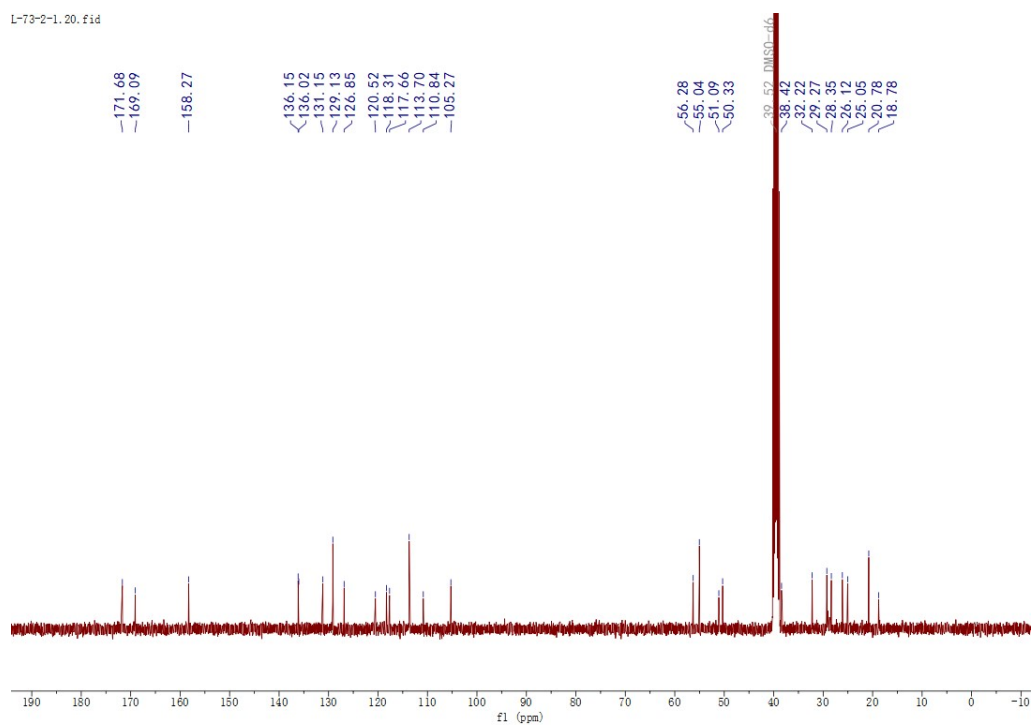
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(1*R*, 3*S*)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2-(4-methoxybenzyl)-1-methyl-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9f**)

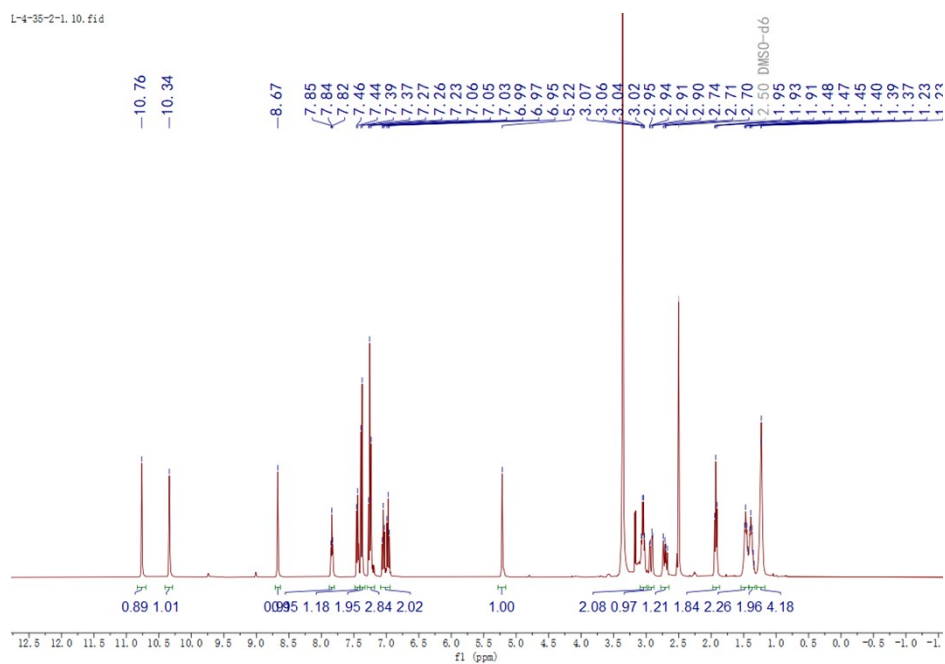


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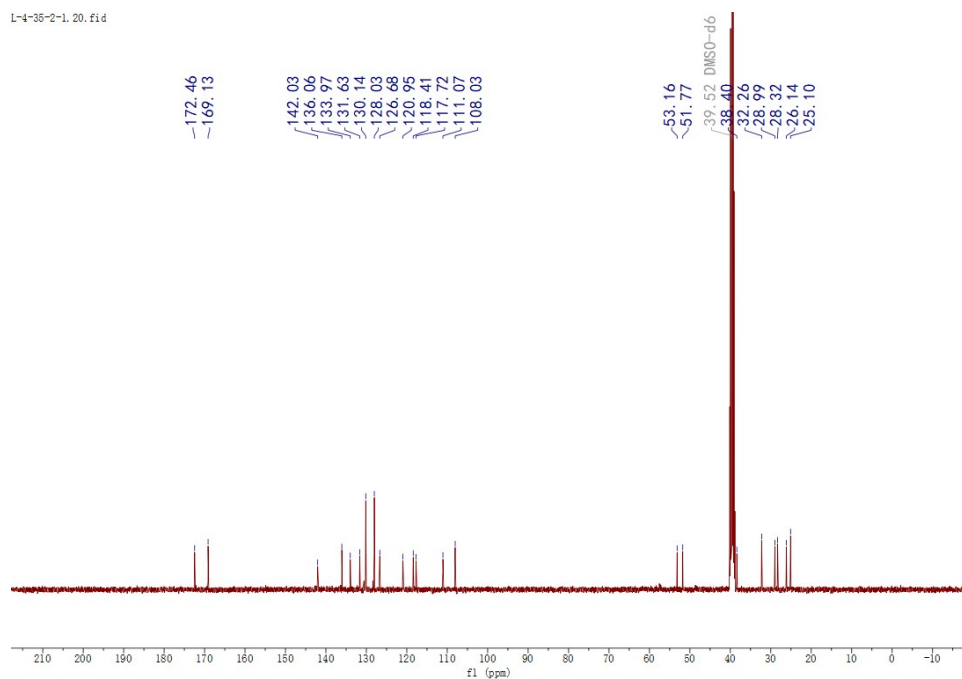


(1*R*, 3*S*)-1-(4-chlorophenyl)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9g**)

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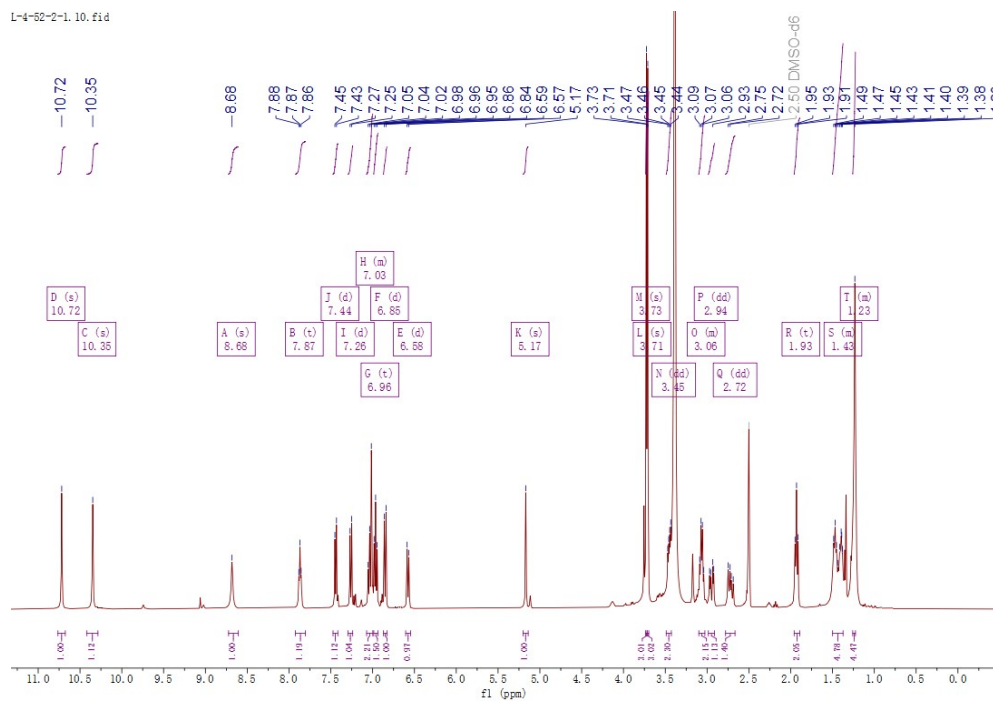


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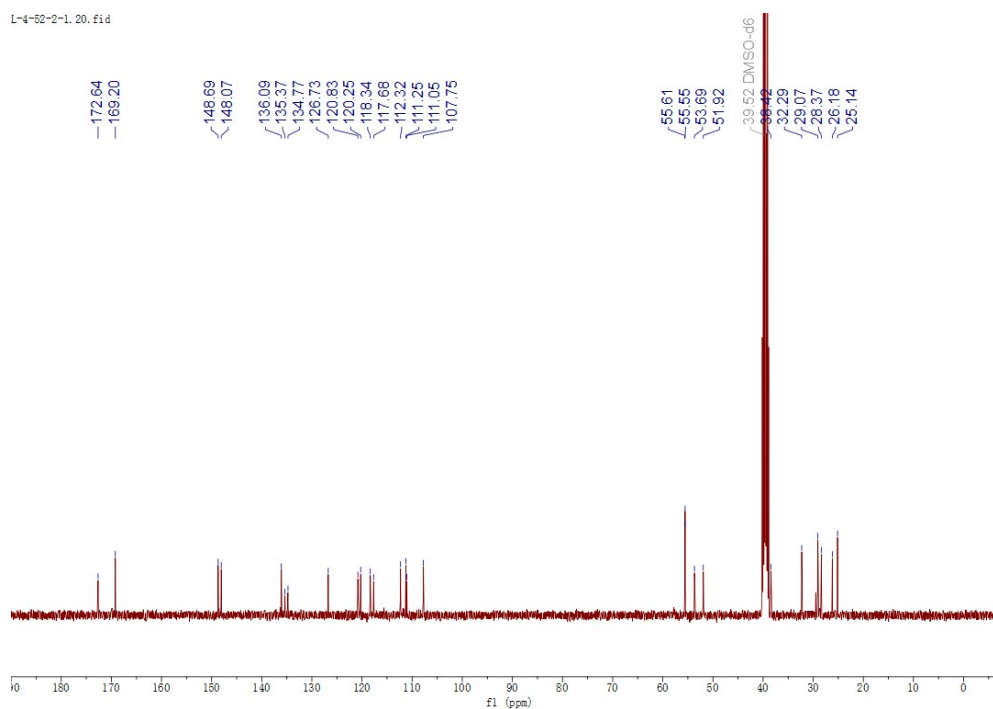


(1*R*, 3*S*)-1-(3, 4-dimethoxyphenyl)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**9h**)

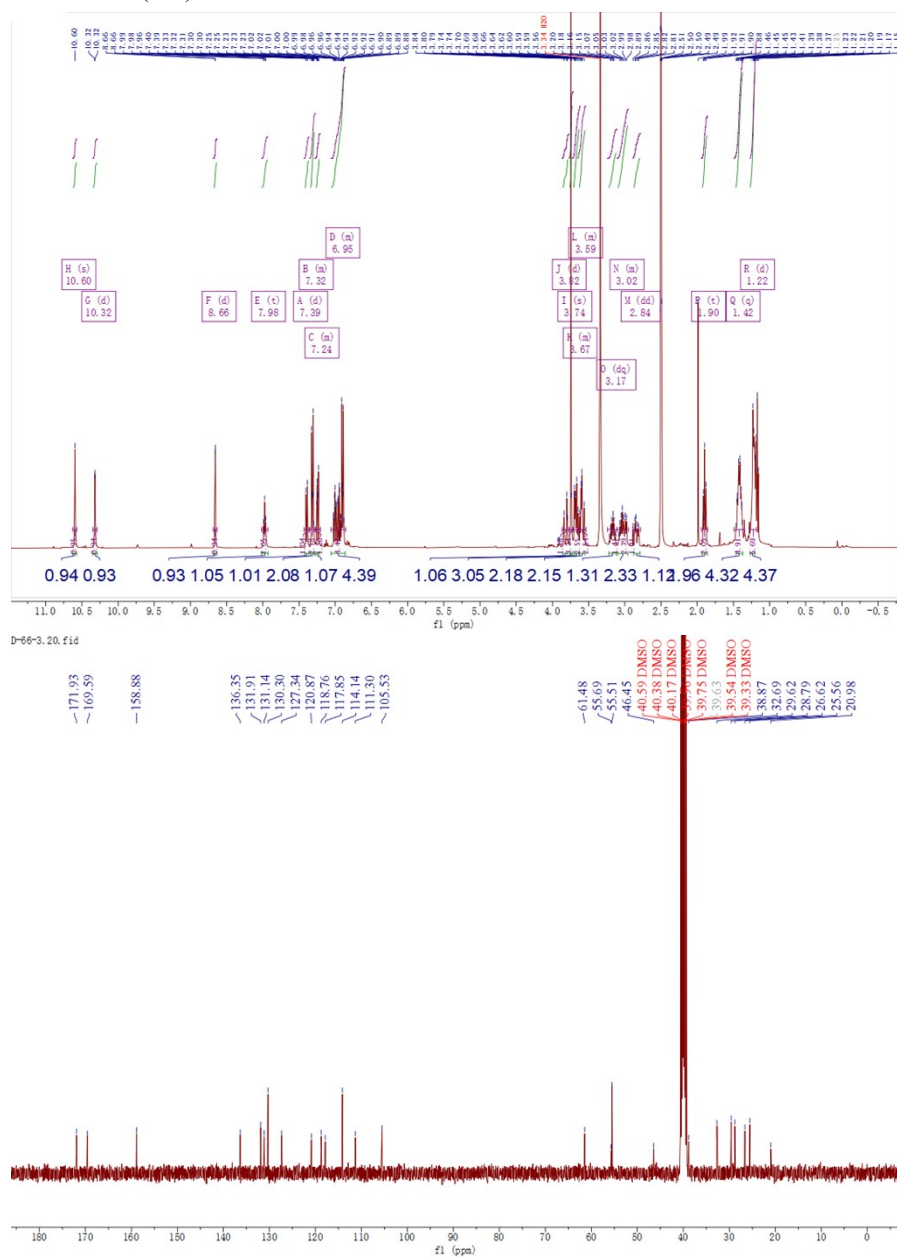
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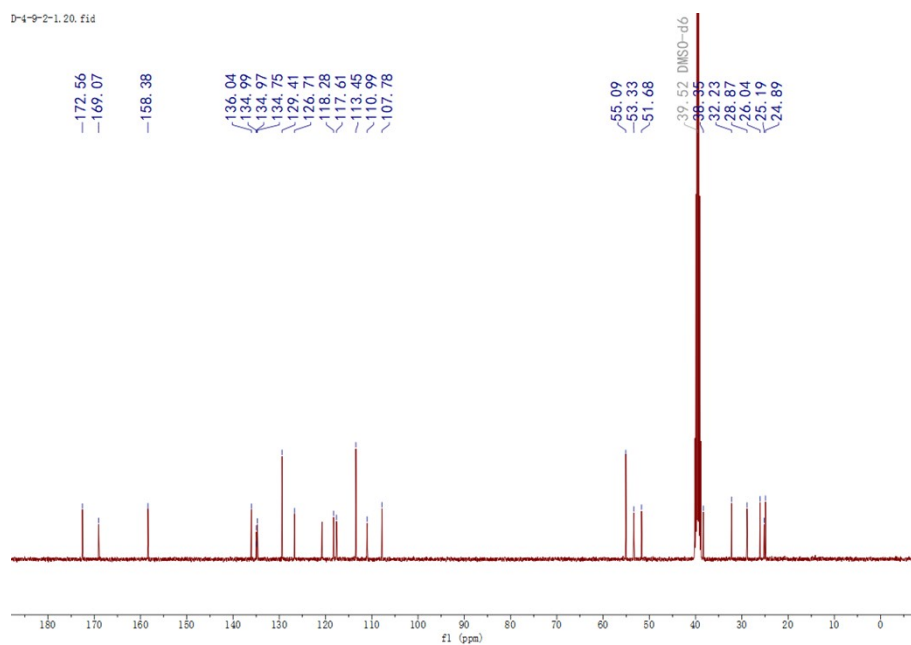
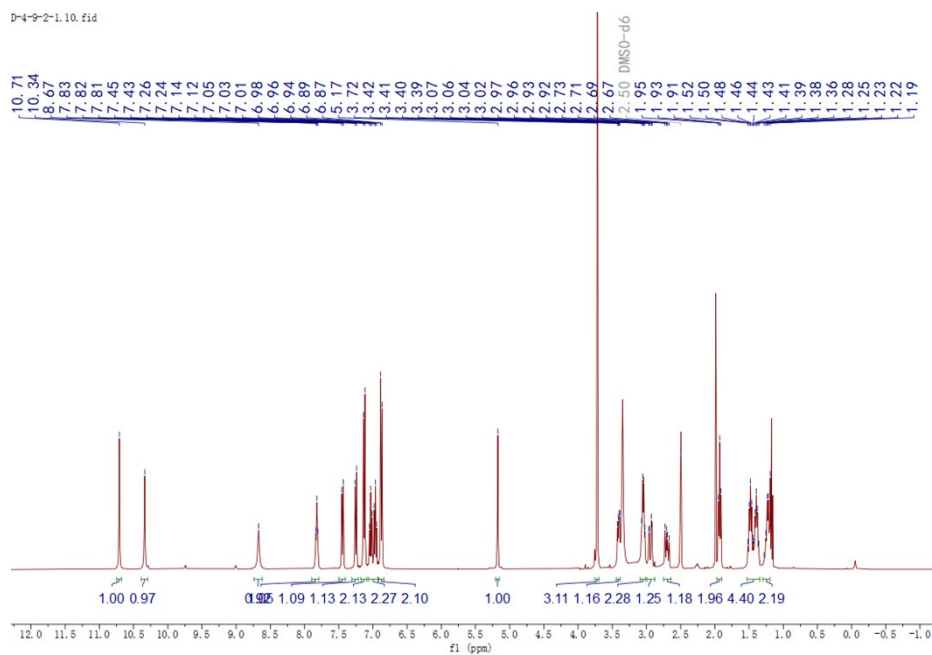
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(*R*)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2-(4-methoxybenzyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13a**)

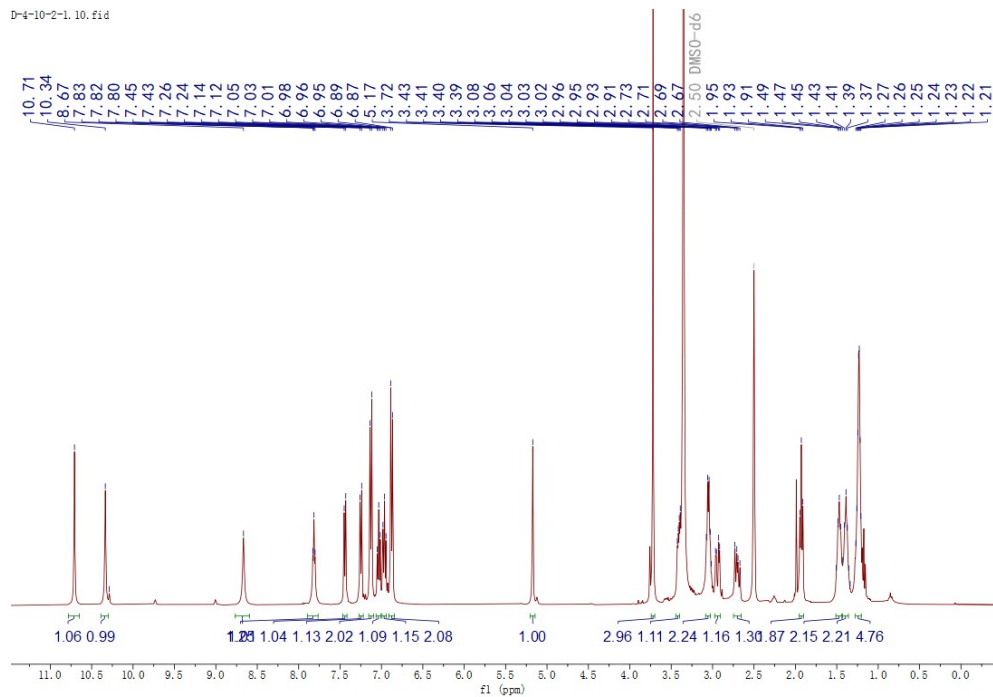


(1*S*, 3*R*)-*N*-(6-(hydroxyamino)-6-oxohexyl)-1-(4-methoxyphenyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13b**)

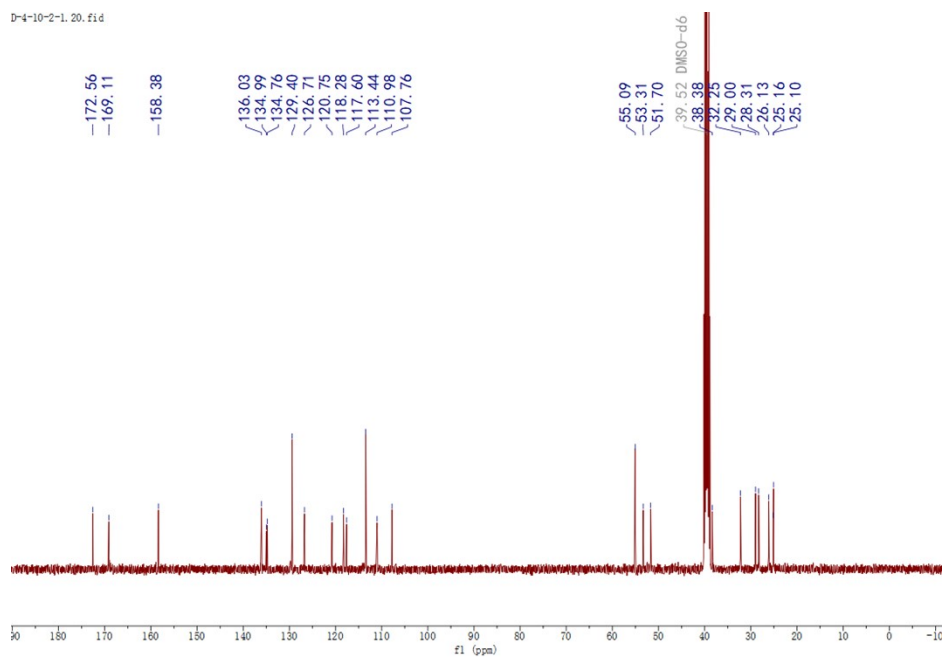


(1*S*, 3*R*)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-1-(4-methoxyphenyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13c**)

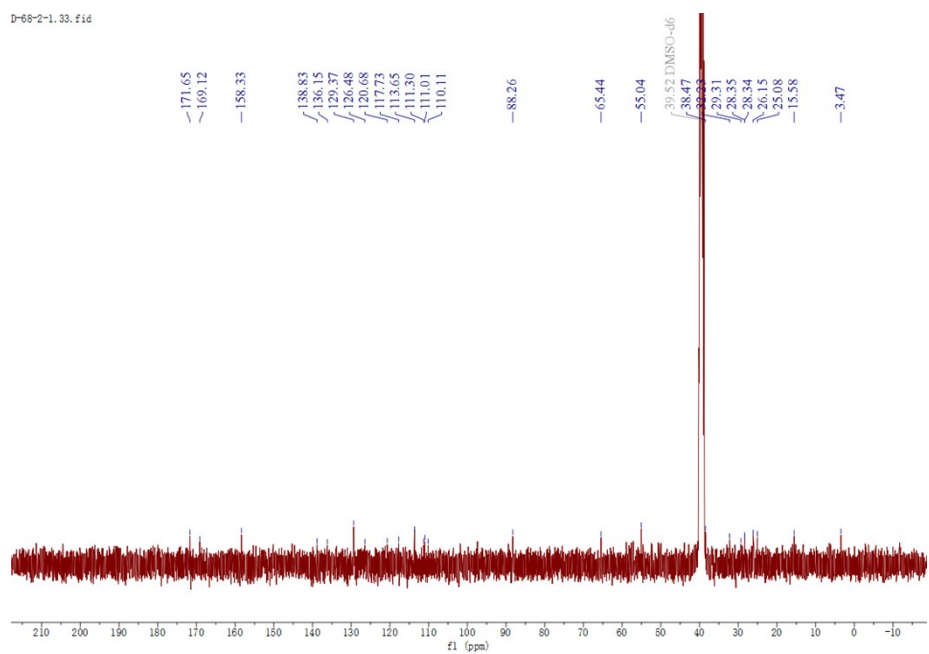
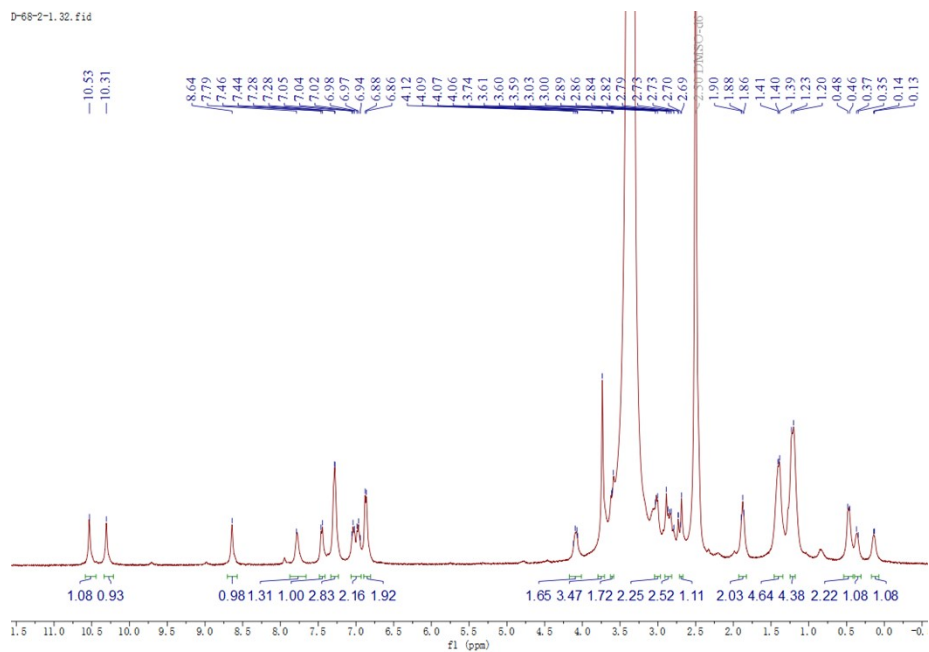
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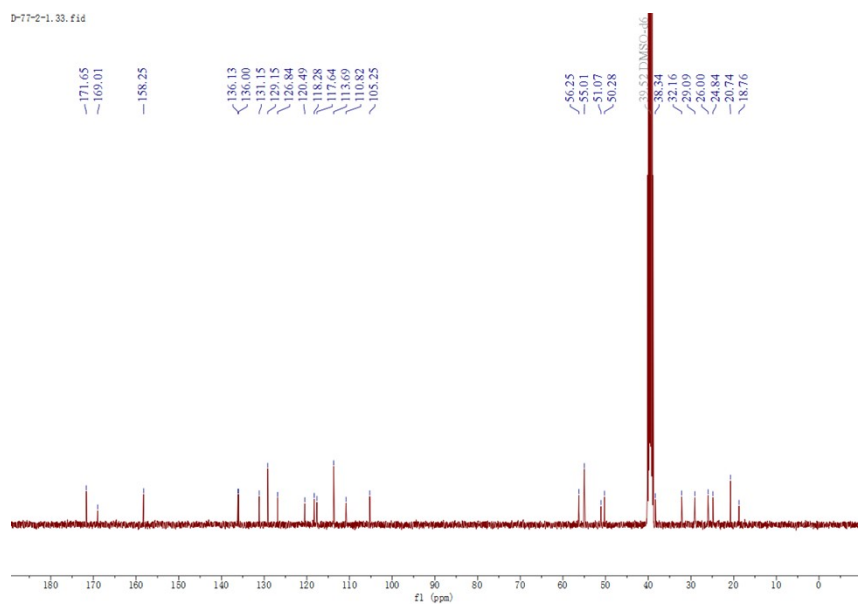
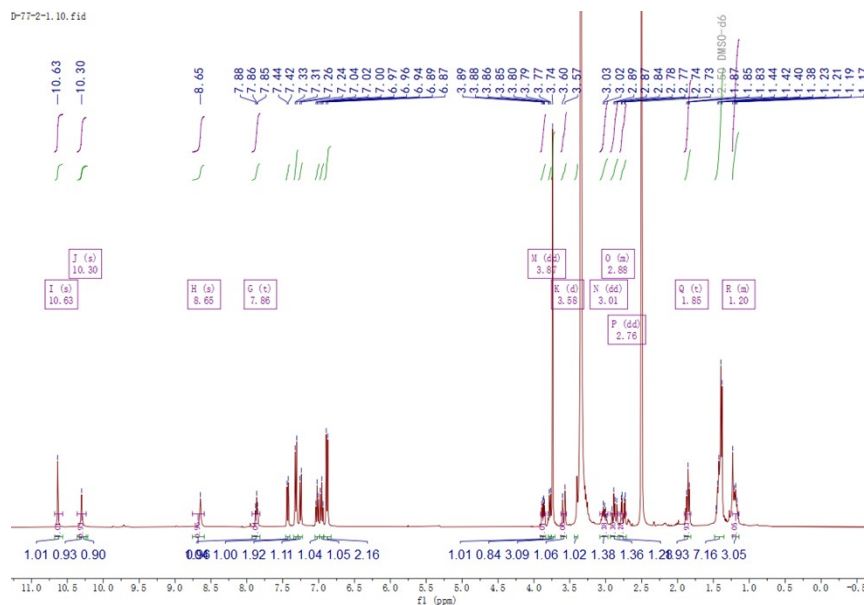
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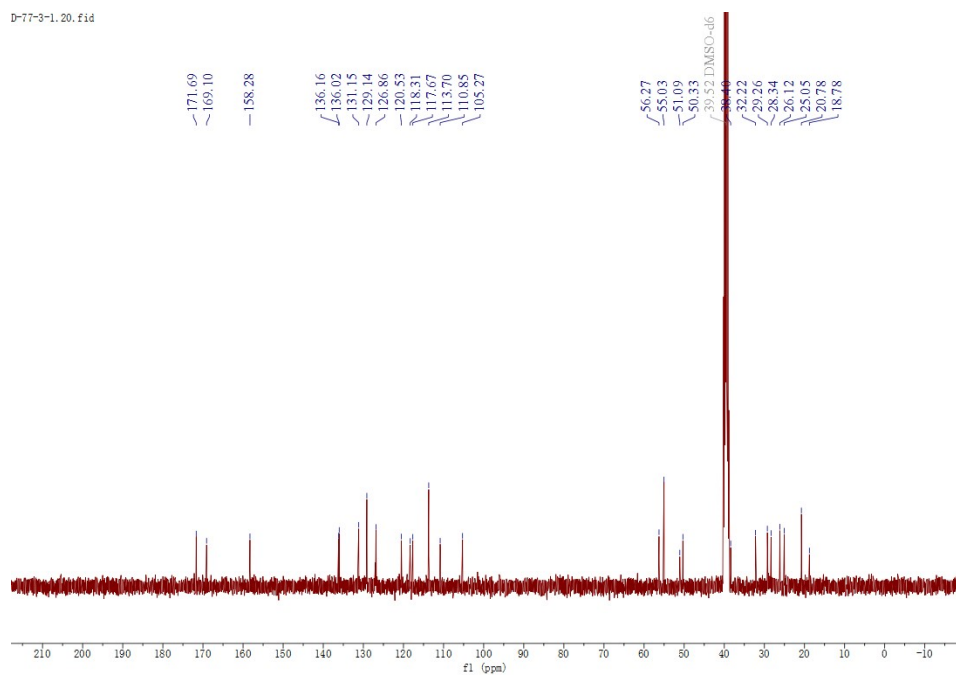
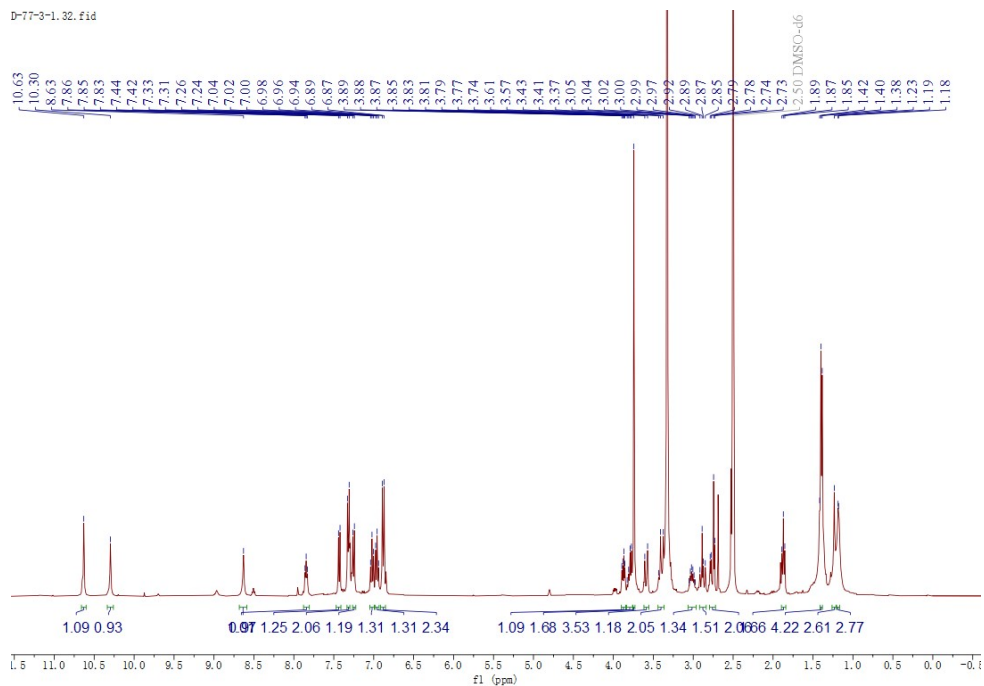
(1*S*, 3*R*)-1-cyclopropyl-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2-(4-methoxybenzyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13d**)



(1*S*, 3*R*)-*N*-(6-(hydroxyamino)-6-oxohexyl)-2-(4-methoxybenzyl)-1-methyl-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13e**)

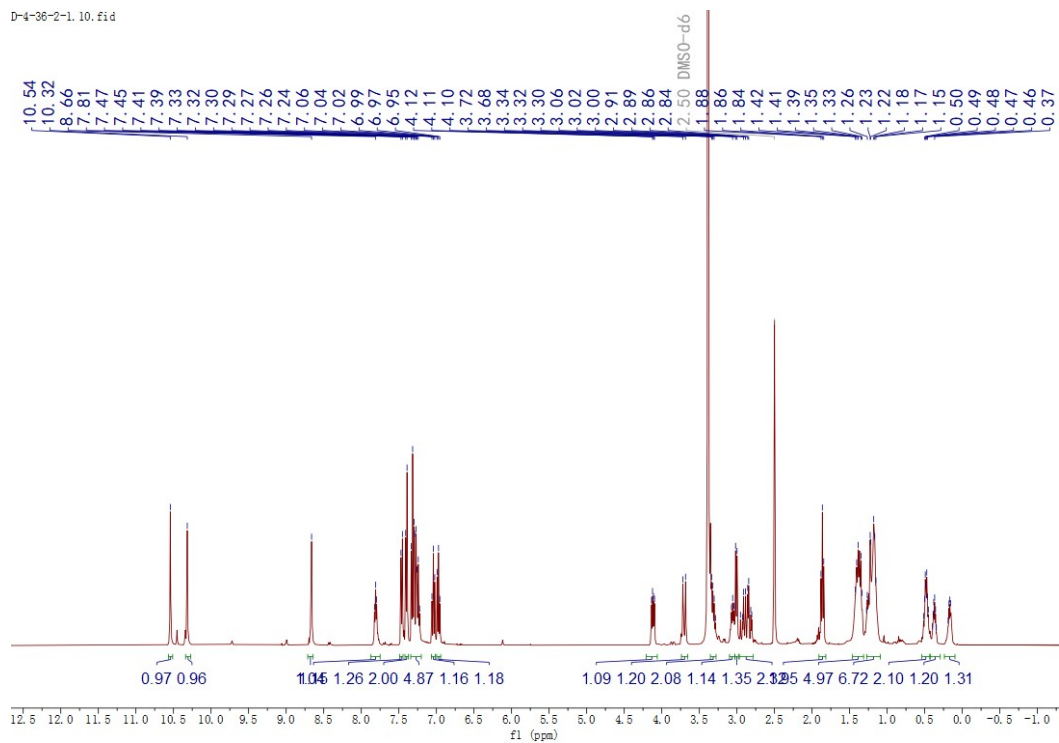


(1*S*, 3*R*)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2-(4-methoxybenzyl)-1-methyl-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13f**)

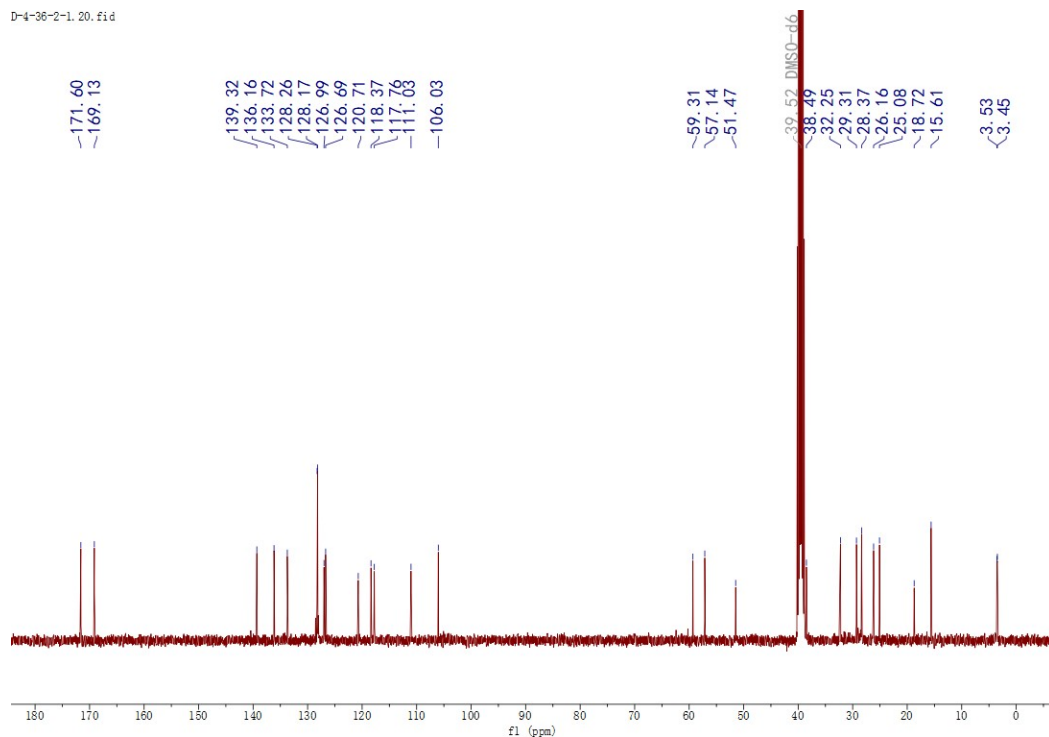


(1*S*, 3*R*)-2-benzyl-1-cyclopropyl-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13g**)

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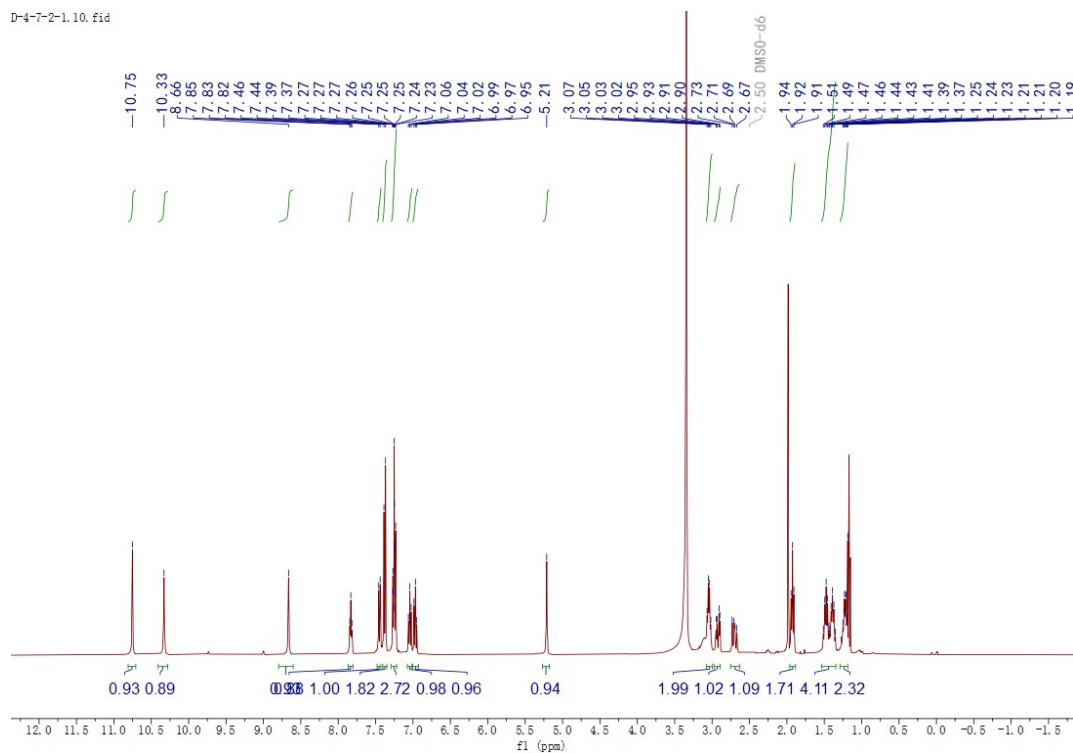


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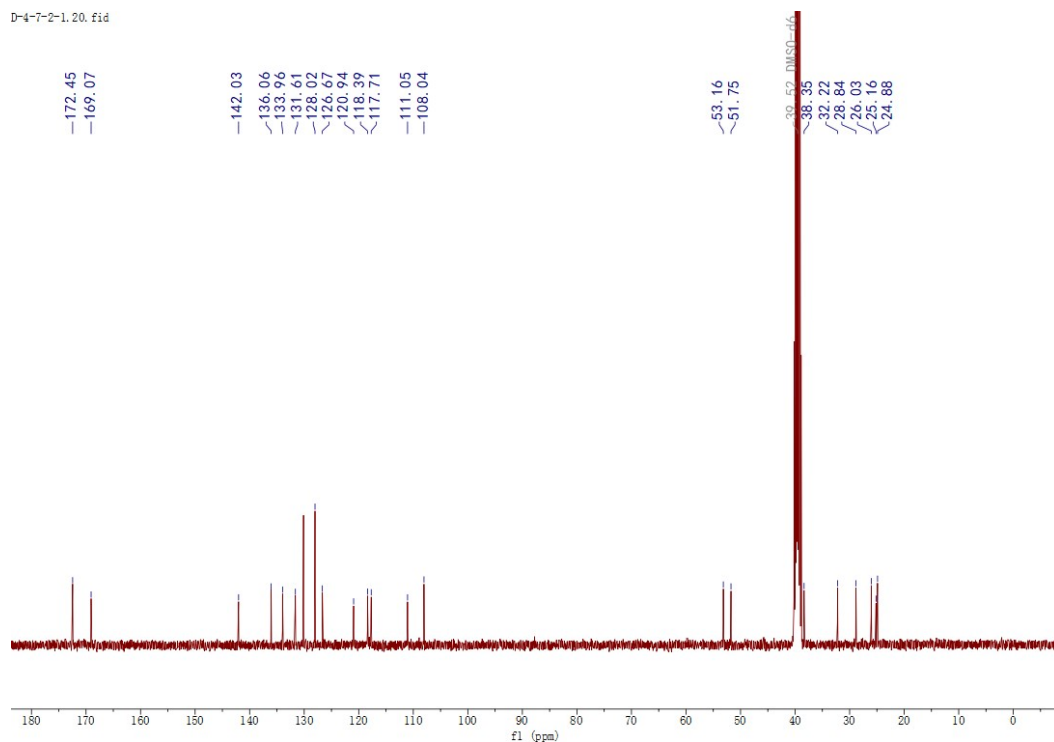


(1*S*, 3*R*)-1-(4-chlorophenyl)-*N*-(6-(hydroxyamino)-6-oxohexyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13h**)

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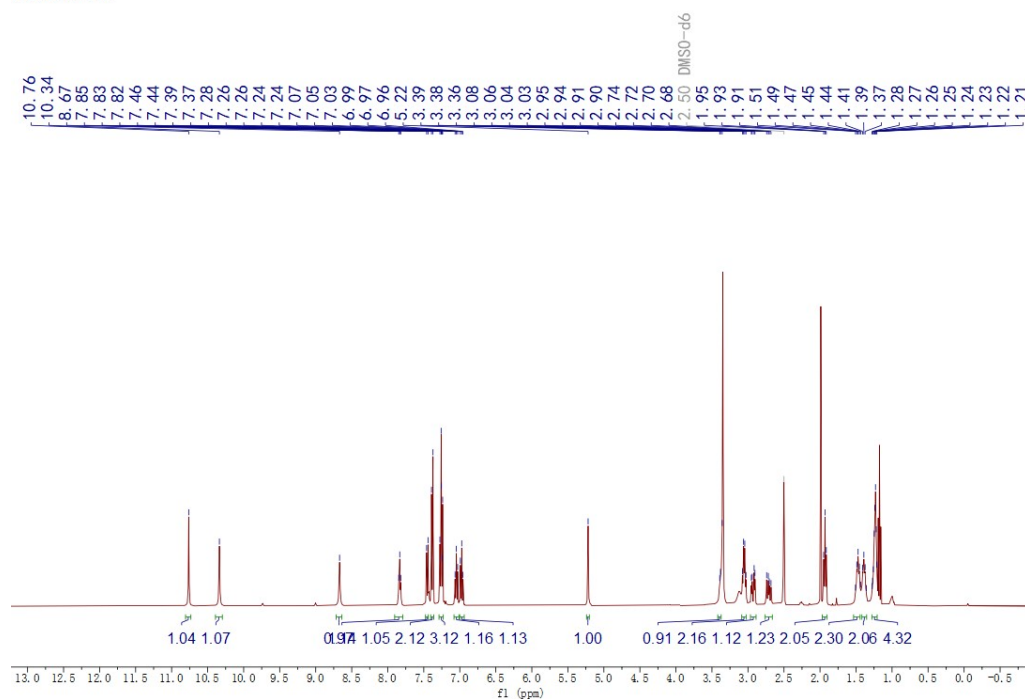


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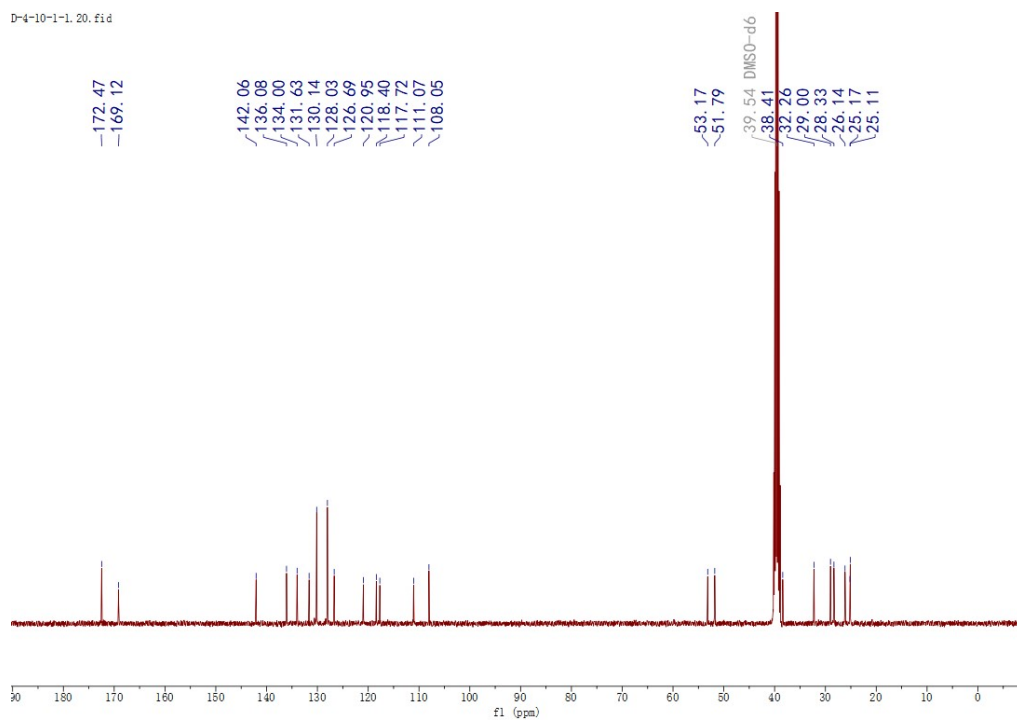


(1*S*, 3*R*)-1-(4-chlorophenyl)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13i**)

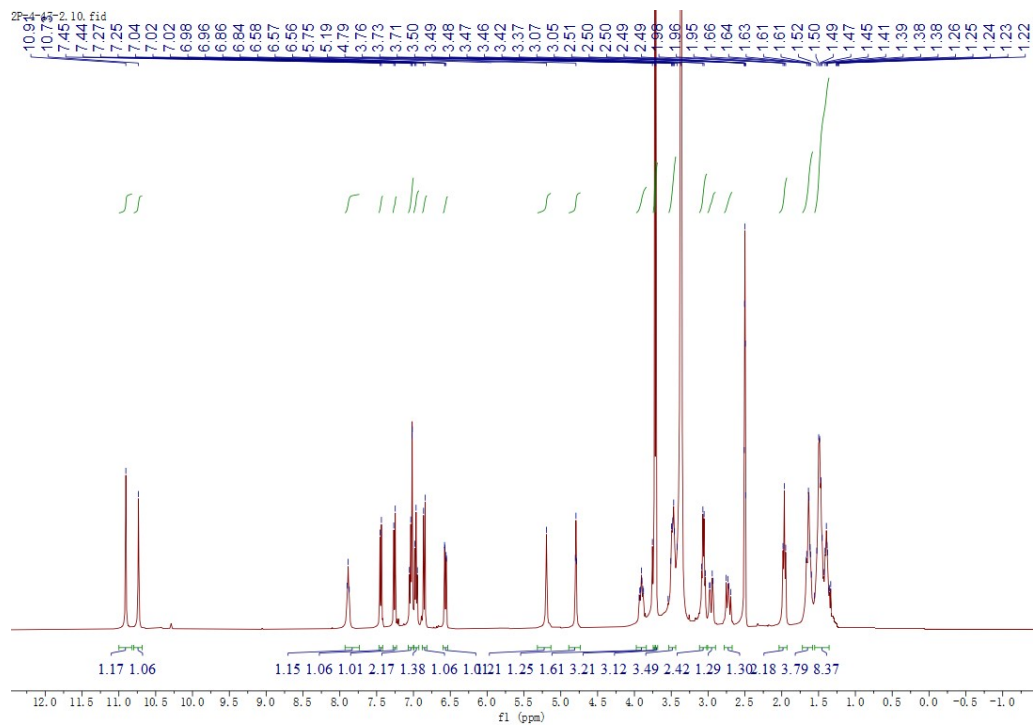
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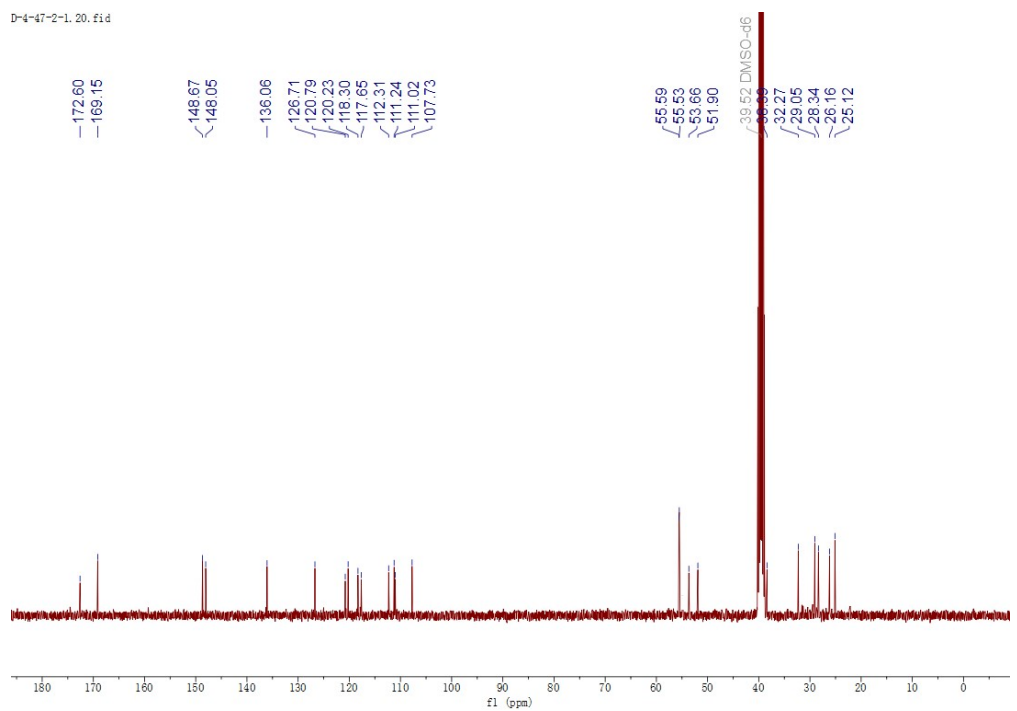
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(1*S*, 3*R*)-1-(3, 4-dimethoxyphenyl)-*N*-(7-(hydroxyamino)-7-oxoheptyl)-2, 3, 4, 9-tetrahydro-1*H*-pyrido[3, 4-*b*]indole-3-carboxamide (**13j**)



D-4-47-2-1.20.fid



The growth percent of **13d** in NCI-60 program

