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## DATASHEET

JNJ 16259685

### Product overview

|                          |   |
|--------------------------|---|
| <b>Name</b>              | JNJ 16259685  |
| <b>Cat No</b>            | HB0348  |
| <b>Biological action</b> | Antagonist  |
| <b>Purity</b>            | >98%  |
| <b>Description</b>       | Potent, selective, non-competitive mGlu <sub>1</sub> antagonist |

### Images



### Biological Data

|                               |   |
|-------------------------------|---|
| <b>Biological description</b> | Potent, selective and non-competitive mGlu <sub>1</sub> receptor antagonist ( $K_i = 0.34$ nM at mGlu <sub>1a</sub> ).<br><br>Displays no activity at mGlu <sub>2</sub> , mGlu <sub>3</sub> , mGlu <sub>4</sub> , mGlu <sub>6</sub> , NMDA or AMPA receptors ( $IC_{50} = >10$ $\mu$ M). Blood-brain barrier permeable.<br><br>Inhibits glutamate-induced Ca <sup>2+</sup> mobilization ( $IC_{50} = 3.24$ nM at recombinant rat mGlu <sub>1a</sub> receptor).<br><br>Decreases drug and alcohol addiction behaviours in rodents. |
|-------------------------------|---|

### Solubility & Handling

|                             |   |
|-----------------------------|---|
| <b>Storage instructions</b> | +4 °C   |
| <b>Solubility overview</b>  | Soluble in ethanol (100mM) and in DMSO (25mM)   |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

### Chemical Data

|                           |  |
|---------------------------|--|
| <b>Chemical name</b>      | (3,4-Dihydro-2H-pyrano[2,3-b]quinolin-7-yl)-(cis-4-methoxycyclohexyl)-methanone  |
| <b>Molecular Weight</b>   | 325.41   |
| <b>Chemical structure</b> | The chemical structure shows a central carbonyl group (C=O) connecting a cis-4-methoxycyclohexyl ring to a 3,4-dihydro-2H-pyrano[2,3-b]quinolin-7-yl ring system. The methoxy group (MeO) is attached to the cyclohexane ring at the 4-position. |

|                           |  |
|---------------------------|--|
| <b>Molecular Formula</b>  | C <sub>20</sub> H <sub>23</sub> NO <sub>3</sub>  |
| <b>CAS Number</b>         | 409345-29-5  |
| <b>PubChem identifier</b> | 11313361   |
| <b>SMILES</b>             | <chem>COC1CCC(CC1)C(=O)C2=CC3=CC4=C(N=C3C=C2)OCCC4</chem>  |
| <b>InChi</b>              | InChI=1S/C20H23NO3/c1-23-17-7-4-13(5-8-17)19(22)14-6-9-18-16(11-14)12-15-3-2-10-24-20(15)21-18/h6,9,11-13,17H,2-5,7-8,10H2,1H3 |
| <b>InChiKey</b>           | QOTAQTRFJWLFQR-UHFFFAOYSA-N  |
| <b>Appearance</b>         | Off-white solid  |

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## References

### **JNJ16259685, a highly potent, selective and systemically active mGlu1 receptor antagonist.**

Lavreysen H *et al* (2004) *Neuropharmacology* 47(7)

**PubMedID** [15555631](#)

### **Effects of mGluR1 antagonism in the dorsal hippocampus on drug context-induced reinstatement of cocaine-seeking behavior in rats.**

Xie X *et al* (2010) *Psychopharmacology (Berl)* 208(1)

**PubMedID** [19847405](#)

### **mGluR1 within the nucleus accumbens regulates alcohol intake in mice under limited-access conditions.**

Lum EN *et al* (2014) *Neuropharmacology* 79

**PubMedID** [24467847](#)

### **Synthesis, structure-activity relationship, and receptor pharmacology of a new series of quinoline derivatives acting as selective, noncompetitive mGlu1 antagonists.**

Mabire D *et al* (2005) *J Med Chem* 48(6)

**PubMedID** [15771457](#)

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