# Product data sheet

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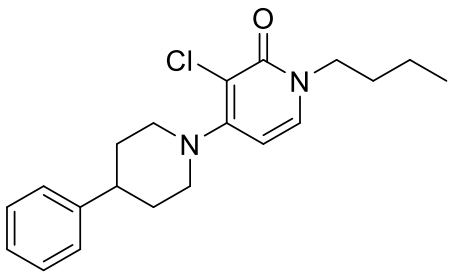
|---|---|
| MedKoo Cat#: 526853<br>Name: JNJ-40411813<br>CAS: 1127498-03-6<br>Chemical Formula: $C_{20}H_{25}ClN_2O$<br>Exact Mass: 344.1655<br>Molecular Weight: 344.883 |  |
| Product supplied as: | Powder |
| Purity (by HPLC): | ≥ 98% |
| Shipping conditions | Ambient temperature |
| Storage conditions: | Powder: -20°C 3 years; 4°C 2 years. |
| | In solvent: -80°C 3 months; -20°C 2 weeks. |

**1. Product description:**

JNJ-40411813, also known as ADX71149, is a positive allosteric modulator of the mGlu2 receptor. JNJ-40411813 acts as a PAM at the cloned mGlu2 receptor: EC50 = 147 ± 42 nmol/L in a [(35)S]GTPγS binding assay with human metabotropic glutamate type 2 (hmGlu2) CHO cells and EC50 = 64 ± 29 nmol/L in a Ca(2+) mobilization assay with hmGlu2 G α16 cotransfected HEK293 cells. JNJ-40411813 displaced [(3)H]JNJ-40068782 and [(3)H]JNJ-46281222 (mGlu2 receptor PAMs), while it failed to displace [(3)H]LY341495 (a competitive mGlu2/3 receptor antagonist). JNJ-40411813 is an interesting candidate to explore the therapeutic potential of mGlu2 PAMs, in in vivo rodents experiments as well as in clinical studies.

**2. CoA, QC data, SDS, and handling instruction**

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

**3. Solubility data**

| Solvent | Max Conc. mg/mL | Max Conc. mM |
|---|---|---|
| DMSO | 25.0 | 72.49 |

**4. Stock solution preparation table:**

| Concentration / Solvent Volume / Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.90 mL | 14.50 mL | 29.00 mL |
| 5 mM | 0.58 mL | 2.90 mL | 5.80 mL |
| 10 mM | 0.29 mL | 1.45 mL | 2.90 mL |
| 50 mM | 0.06 mL | 0.29 mL | 0.58 mL |

**5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator**

Please refer the product web page under section of "Calculator"

**6. Recommended literature which reported protocols for in vitro and in vivo study**

In vitro study

1. Lavreysen H, Ahnaou A, Drinkenburg W, Langlois X, Mackie C, Pype S, Lütjens R, Le Poul E, Trabanco AA, Nuñez JM. Pharmacological and pharmacokinetic properties of JNJ-40411813, a positive allosteric modulator of the mGlu2 receptor. Pharmacol Res Perspect. 2015 Feb;3(1):e00096. doi: 10.1002/prp2.96. Epub 2014 Dec 9. PMID: 25692015; PMCID: PMC4317228.

In vivo study

1. Lavreysen H, Langlois X, Donck LV, Nuñez JM, Pype S, Lütjens R, Megens A. Preclinical evaluation of the antipsychotic potential of the mGlu2-positive allosteric modulator JNJ-40411813. Pharmacol Res Perspect. 2015 Mar;3(2):e00097. doi: 10.1002/prp2.97. Epub 2015 Jan 30. PMID: 25692027; PMCID: PMC4324682.
2. Lavreysen H, Ahnaou A, Drinkenburg W, Langlois X, Mackie C, Pype S, Lütjens R, Le Poul E, Trabanco AA, Nuñez JM. Pharmacological and pharmacokinetic properties of JNJ-40411813, a positive allosteric modulator of the mGlu2 receptor. Pharmacol Res Perspect. 2015 Feb;3(1):e00096. doi: 10.1002/prp2.96. Epub 2014 Dec 9. PMID: 25692015; PMCID: PMC4317228.

**7. Bioactivity**

# Product data sheet

Biological target:

JNJ-40411813 (ADX-71149) is a novel positive allosteric modulator of the metabotropic Glutamate 2 receptor (mGlu2R) with EC50 of 147 nM.

In vitro activity

JNJ-40411813 acts as a PAM at the cloned mGlu2 receptor: EC50 = 147 ± 42 nmol/L in a [(35)S]GTPγS binding assay with human metabotropic glutamate type 2 (hmGlu2) CHO cells and EC50 = 64 ± 29 nmol/L in a Ca(2+) mobilization assay with hmGlu2 G α16 cotransfected HEK293 cells.

Reference: Pharmacol Res Perspect. 2015 Feb;3(1):e00096. https://pubmed.ncbi.nlm.nih.gov/25692015/

In vivo activity

In mice, JNJ-40411813, JNJ-42153605, and LY404039 inhibited spontaneous locomotion and phencyclidine- and scopolamine-induced but not d-amphetamine-induced hyperlocomotion; the 5HT2A antagonist ritanserin inhibited only spontaneous locomotion and phencyclidine-induced hyperlocomotion.

Reference: Pharmacol Res Perspect. 2015 Mar;3(2):e00097. https://pubmed.ncbi.nlm.nih.gov/25692027/

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*