# Product data sheet

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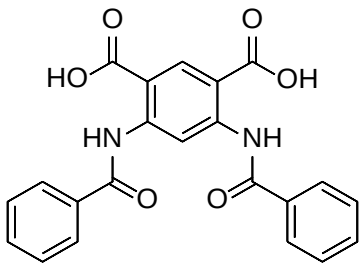
|---|---|
| MedKoo Cat#: 532370<br>Name: NS3763<br>CAS: 70553-45-6<br>Chemical Formula: $C_{22}H_{16}N_2O_6$<br>Exact Mass: 404.1008<br>Molecular Weight: 404.378 |  |
| Product supplied as: | Powder |
| Purity (by HPLC): | ≥ 98% |
| Shipping conditions | Ambient temperature |
| Storage conditions: | Powder: -20°C 3 years; 4°C 2 years. |
| | In solvent: -80°C 3 months; -20°C 2 weeks. |

**1. Product description:**
NS3763 is a noncompetitive antagonist of GLUK5 receptor. NS3763 displays selectivity for inhibition of domoate-induced increase in intracellular calcium mediated through the GLU(K5) subtype (IC(50) = 1.6 microM) of kainate receptors compared with the GLU(K6) subtype (IC(50) > 30 microM). NS3763 inhibits the GLU(K5)-mediated response in a noncompetitive manner. NS3763 selectively inhibits l-glutamate- and domoate-evoked currents through GLU(K5) receptors in HEK293 cells.

**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 |
|---|---|---|
| TBD | TBD | TBD |

**4. Stock solution preparation table:**

| Concentration / Solvent Volume / Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.47 mL | 12.36 mL | 24.73 mL |
| 5 mM | 0.49 mL | 2.47 mL | 4.95 mL |
| 10 mM | 0.25 mL | 1.24 mL | 2.47 mL |
| 50 mM | 0.05 mL | 0.25 mL | 0.49 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

Christensen JK, Varming T, Ahring PK, Jørgensen TD, Nielsen EØ. In vitro characterization of 5-carboxyl-2,4-di-benzamidobenzoic acid (NS3763), a noncompetitive antagonist of GLUK5 receptors. J Pharmacol Exp Ther. 2004 Jun;309(3):1003-10. doi: 10.1124/jpet.103.062794. Epub 2004 Feb 25. PMID: 14985418.

In vivo study

TBD

**7. Bioactivity**
Biological target:

NS3763 is a selective and noncompetitive GLUK5 receptor antagonist with an IC50 of 1.6 μM.

In vitro activity

In functional assays in human embryonic kidney (HEK)293 cells expressing homomeric GLU(K5) or GLU(K6) receptors, NS3763 is shown to display selectivity for inhibition of domoate-induced increase in intracellular calcium mediated through the GLU(K5) subtype (IC(50) = 1.6 microM) of kainate receptors compared with the GLU(K6) subtype (IC(50) > 30 microM). NS3763 inhibits the

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GLU(K5)-mediated response in a noncompetitive manner and does not inhibit [(3)H]alpha-amino-3-hydroxy-5-tertbutylisoxazole-4-propionic acid binding to GLU(K5) receptors.

Reference: J Pharmacol Exp Ther. 2004 Jun;309(3):1003-10. https://pubmed.ncbi.nlm.nih.gov/14985418/

In vivo activity

TBD

*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.*