

Product data sheet



MedKoo Cat#: 574706 Name: GBR-12783 CAS: 67469-57-2 Chemical Formula: C ₂₈ H ₃₂ N ₂ O Exact Mass: 412.2515 Molecular Weight: 412.577	
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:

GBR-12783 is a very potent and selective inhibitor of dopamine uptake.

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	2.42 mL	12.12 mL	24.24 mL
5 mM	0.48 mL	2.42 mL	4.85 mL
10 mM	0.24 mL	1.21 mL	2.42 mL
50 mM	0.05 mL	0.24 mL	0.48 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

TBD

In vivo study

1. Longo F, Mercatelli D, Novello S, Arcuri L, Brugnoli A, Vincenzi F, Russo I, Berti G, Mabrouk OS, Kennedy RT, Shimshek DR, Varani K, Bubacco L, Greggio E, Morari M. Age-dependent dopamine transporter dysfunction and Serine129 phospho- α -synuclein overload in G2019S LRRK2 mice. *Acta Neuropathol Commun.* 2017 Mar 14;5(1):22. doi: 10.1186/s40478-017-0426-8. PMID: 28292328; PMCID: PMC5351259.

2. Li C, Dabrowska J, Hazra R, Rainnie DG. Synergistic activation of dopamine D1 and TrkB receptors mediate gain control of synaptic plasticity in the basolateral amygdala. *PLoS One.* 2011;6(10):e26065. doi: 10.1371/journal.pone.0026065. Epub 2011 Oct 14. PMID: 22022509; PMCID: PMC3193533.

7. Bioactivity

Biological target:

GBR 12783 is a specific, potent and selective dopamine uptake inhibitor that inhibits the [3H]dopamine uptake by rat and mice striatal synaptosomes with IC₅₀s of 1.8 nM and 1.2 nM, respectively.

In vitro activity

TBD

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In vivo activity

GBR-12783 (6 mg/Kg) reduced the immobility time (Fig. 4c) and increased the stepping activity (Fig. 4d) in WT but not G2019S KI mice, while causing a delayed increase in rotarod performance in both genotypes (Fig. 4e).

Reference: Acta Neuropathol Commun. 2017 Mar 14;5(1):22. <https://pubmed.ncbi.nlm.nih.gov/28292328/>

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.