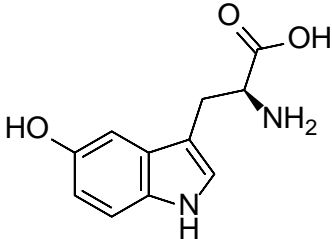


Product data sheet



MedKoo Cat#: 318400 Name: Oxitriptan CAS: 4350-09-8 Chemical Formula: C ₁₁ H ₁₂ N ₂ O ₃ Exact Mass: 220.0848 Molecular Weight: 220.2246	
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:

Oxitriptan is a naturally occurring amino acid and chemical precursor as well as a metabolic intermediate in the biosynthesis of the neurotransmitters serotonin and melatonin from tryptophan. It is used as an antiepileptic and antidepressant.

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	28.25	128.28
Water	2.0	9.08

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.54 mL	22.70 mL	45.41 mL
5 mM	0.91 mL	4.54 mL	9.08 mL
10 mM	0.45 mL	2.27 mL	4.54 mL
50 mM	0.09 mL	0.45 mL	0.91 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. Huang J, Wang X, Li B, Shen S, Wang R, Tao H, Hu J, Yu J, Jiang H, Chen K, Luo C, Dang Y, Zhang Y. L-5-hydroxytryptophan promotes antitumor immunity by inhibiting PD-L1 inducible expression. *J Immunother Cancer*. 2022 Jun;10(6):e003957. doi: 10.1136/jitc-2021-003957. PMID: 35728870; PMCID: PMC9214382.

In vivo study

1. Choi Y, Huh E, Lee S, Kim JH, Park MG, Seo SY, Kim SY, Oh MS. 5-Hydroxytryptophan Reduces Levodopa-Induced Dyskinesia via Regulating AKT/mTOR/S6K and CREB/ΔFosB Signals in a Mouse Model of Parkinson's Disease. *Biomol Ther (Seoul)*. 2023 Mar 15. doi: 10.4062/biomolther.2022.141. Epub ahead of print. PMID: 36918741.

2. Pascucci T, Andolina D, Mela IL, Conversi D, Latagliata C, Ventura R, Puglisi-Allegra S, Cabib S. 5-Hydroxytryptophan rescues serotonin response to stress in prefrontal cortex of hyperphenylalaninaemic mice. *Int J Neuropsychopharmacol*. 2009 Sep;12(8):1067-79. doi: 10.1017/S1461145709990381. Epub 2009 Aug 10. PMID: 19664307.

7. Bioactivity

Biological target:

L-5-Hydroxytryptophan (L-5-HTP), a naturally occurring amino acid and a dietary supplement for use as an antidepressant, appetite suppressant, and sleep aid, is the immediate precursor of the neurotransmitter serotonin and a reserpine antagonist.

Product data sheet



In vitro activity

L-5-HTP suppressed IFN- γ -induced PD-L1 expression in tumor cells transcriptionally, and this effect was directly due to itself. Mechanistically, L-5-HTP inhibited IFN- γ -induced expression of RTK ligands and thus suppressed phosphorylation-mediated activation of RTK receptors and the downstream MEK/ERK/c-JUN signaling cascade, leading to decreased PD-L1 induction.

Reference: J Immunother Cancer. 2022 Jun;10(6):e003957. <https://pubmed.ncbi.nlm.nih.gov/35728870/>

In vivo activity

Finally, systemic administration of 5-hydroxytryptophan, the product of tryptophan hydroxylase activity, allowed frontal cortical serotonin response to stress in hyperphenylalaninaemic mice. Collectively, these results demonstrate that hyperphenylalaninaemia interferes with the ability of the mature prefrontal cortex to respond to psychological challenges, point to serotonin synthesis as the target of phenylalanine interference, and support the use of 5-hydroxytryptophan in lifelong treatment of hyperphenylalaninaemic subjects.

Reference: Int J Neuropsychopharmacol. 2009 Sep;12(8):1067-79. <https://pubmed.ncbi.nlm.nih.gov/19664307/>

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.