Product data sheet

MedKoo

MedKoo Cat#: 573409	
Name: Rasagiline	
CAS: 136236-51-6	
Chemical Formula: $C_{12}H_{13}N$	
Exact Mass: 171.1048	
Molecular Weight: 171.24	
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.

Product description:

Rasagiline, also known as R-AGN1135, is a selective and irreversible propargylamine inhibitor of monoamine oxidase type-B (MAO-B) that is not metabolized to amphetamine derivatives. Rasagiline exhibits neuroprotective and antiapoptotic activity against ischemia and several neurotoxins, including SIN-1, MPTP, 6-hydroxydopamine, and N-methyl-(R)-salsolinol.

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 (ultrasonic)	100	583.98

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	5.84 mL	29.20 mL	58.40 mL
5 mM	1.17 mL	5.84 mL	11.68 mL
10 mM	0.58 mL	2.92 mL	5.84 mL
50 mM	0.12 mL	0.58 mL	1.17 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under se ction of "Calculator"

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

In vitro study

1. Xie SS, Liu J, Tang C, Pang C, Li Q, Qin Y, Nong X, Zhang Z, Guo J, Cheng M, Tang W, Liang N, Jiang N. Design, synthesis and biological evaluation of rasagiline-clorgyline hybrids as novel dual inhibitors of monoamine oxidase-B and amyloid-β aggregation against Alzheimer's disease. Eur J Med Chem. 2020 Sep 15;202:112475. doi: 10.1016/j.ejmech.2020.112475. Epub 2020 Jun 30. PMID: 32652406.
2. Vale N, Alves C, Sharma V, Lázaro DF, Silva S, Gomes P, Outeiro TF. A new MAP-Rasagiline conjugate reduces α-synuclein inclusion formation in a cell model. Pharmacol Rep. 2020 Apr;72(2):456-464. doi: 10.1007/s43440-019-00032-x. Epub 2020 Jan 15. PMID: 32048262.

In vivo study

1. Kano O, Tsuda H, Hayashi A, Arai M. Rasagiline as Adjunct to Levodopa for Treatment of Parkinson's Disease: A Systematic Review and Meta-Analysis. Parkinsons Dis. 2022 Aug 30;2022:4216452. doi: 10.1155/2022/4216452. PMID: 36081594; PMCID: PMC9448622.
2. Oka H, Sengoku R, Nakahara A, Yamazaki M. Rasagiline does not exacerbate autonomic blood pressure dysregulation in early or mild Parkinson's disease. Clin Park Relat Disord. 2021 Dec 13;6:100124. doi: 10.1016/j.prdoa.2021.100124. PMID: 34977548; PMCID: PMC8689235.

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7. Bioactivity

Biological target:

Rasagiline is a highly potent selective irreversible mitochondrial monoamine oxidase (MAO) inhibitor with IC50s of 4.43 nM and 412 nM for rat brain MAO B and A activity, respectively.

In vitro activity

Compound 6j (a rasagiline-clorgyline hybrid) displayed low toxicity and good neuroprotective effects in SH-SY5Y cell assay. These results indicated that compound 6j was an effective and promising multitarget agent against Alzheimer's disease.

Reference: Eur J Med Chem. 2020 Sep 15;202:112475. https://pubmed.ncbi.nlm.nih.gov/32652406/

In vivo activity

This meta-analysis highlights the superiority of rasagiline/levodopa in improving motor and nonmotor symptoms of Parkinson's disease, with a similar safety profile to that of levodopa in Parkinson's disease with motor fluctuations.

Reference: Parkinsons Dis. 2022 Aug 30;2022:4216452. https://pubmed.ncbi.nlm.nih.gov/36081594/

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.