

PRODUCT INFORMATION



MRK-560

Item No. 27599

CAS Registry No.: 677772-84-8
Formal Name: N-[*cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl]-1,1,1-trifluoromethanesulfonamide

MF: C₁₉H₁₇ClF₅NO₄S₂

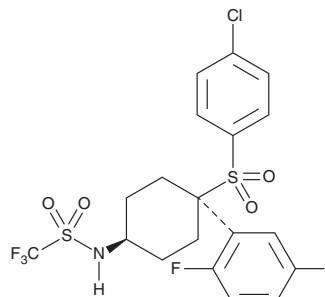
FW: 517.9

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MRK-560 is supplied as a solid. A stock solution may be made by dissolving the MRK-560 in the solvent of choice. MRK-560 is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of MRK-560 in these solvents is approximately 50 and 100 mM, respectively.

Description

MRK-560 is a potent inhibitor of γ -secretase ($IC_{50} = 0.65$ nM).¹ *In vivo*, MRK-560 (1-10 mg/kg) reduces diethanolamine-soluble amyloid- β (1-40) (A β 40) levels in APP-YAC transgenic mouse brain. MRK-560 reduces brain and cerebrospinal fluid A β 40 levels in rats (ED_{50} s = 6 and 10 mg/kg, respectively).² It also decreases brain-soluble A β 40 and A β 42 levels and recovers hippocampal long-term potentiation in the Tg2576 transgenic mouse model of Alzheimer's disease.³

References

1. Churcher, I., Beher, D., Best, J.D., *et al.* 4-Substituted cyclohexyl sulfones as potent, orally active γ -secretase inhibitors. *Bioorg. Med. Chem. Lett.* **16(2)**, 280-284 (2006).
2. Best, J.D., Jay, M.T., Otu, F., *et al.* *In vivo* characterization of A β (40) changes in brain and cerebrospinal fluid using the novel γ -secretase inhibitor N-[*cis*-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl]-1,1,1-trifluoromethanesulfonamide (MRK-560) in the rat. *J. Pharmacol. Exp. Ther.* **317(2)**, 786-790 (2006).
3. Townsend, M., Qu, Y., Gray, A., *et al.* Oral treatment with a γ -secretase inhibitor improves long-term potentiation in a mouse model of Alzheimer's disease. *J. Pharmacol. Exp. Ther.* **333(1)**, 110-119 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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