# a biotechne brand

### **Certificate of Analysis**

#### www.tocris.com

#### Product Name: MRK 560

Catalog No.: 4000

Batch No.: 1

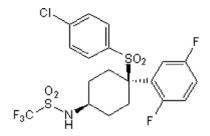
CAS Number: IUPAC Name: 677772-84-8

N-[cis-4-[(4-Chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl]-1,1,1-trifluoromethanesulfonamide

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility: C<sub>19</sub>H<sub>17</sub>CIF<sub>5</sub>NO<sub>4</sub>S<sub>2</sub> 517.92 White solid DMSO to 100 mM ethanol to 50 mM Store at +4°C

Storage: Batch Molecular Structure:



#### 2. ANALYTICAL DATA

TLC: HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis:

R<sub>f</sub> = 0.4 (Chloroform/Ethyl acetate [95:5]) Shows 100% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen

Theoretical	44.06	3.31	2.7
Found	44.15	3.3	2.82

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.comNorth AmericaChinaEurope Middle East AfricaRest of Worldinfo@bio-techne.comTel: (800) 343 7475info.cn@bio-techne.comTel: +44 (0) 1235 529449www.tocris.com/distributorstechsupport@bio-techne.comTel: +86 (21) 52380373Tel: +44 (0) 1235 529449tel: +1 612 379 2956

## TOCRIS a biotechne brand

## Print Date: Mar 23<sup>rd</sup> 2021

Batch No.: 1

#### Product Name: MRK 560

CAS Number: 677772-84-8

IUPAC Name:

N-[cis-4-[(4-Chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl]-1,1,1-trifluoromethanesulfonamide

#### **Description:**

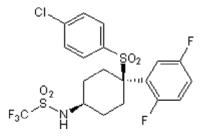
MRK 560 is a  $\gamma$ -secretase inhibitor, which selectively inhibits proteolytic cleavage of amyloid precursor protein (APP) over the Notch pathway. MRK 560 reduces levels of A $\beta$  in vitro (inhibits A $\beta$ 40 and A $\beta$ 42 in SH-SY5Y neuroblastoma cells with an IC<sub>50</sub> of 0.65 nM) and attenuates plaque deposition. This compound is orally bioavailable.

#### **Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{19}H_{17}CIF_5NO_4S_2$ Batch Molecular Weight: 517.92 Physical Appearance: White solid

#### Minimum Purity: ≥99%

#### **Batch Molecular Structure:**



#### **References:**

#### Storage: Store at +4°C

Solubility & Usage Info: DMSO to 100 mM

ethanol to 50 mM

#### **Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a  $45-60^{\circ}C$  water bath).

Catalog No.: 4000

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

#### Licensing Information:

Manufactured and sold under license from Merck & Co., Inc. for use solely for preclinical research purposes (ie: not for administration to or other use in humans).

**Best** *et al* (2007) The novel γ-secretase inhibitor N-[cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl] -1,1,1-trifluoromethanesulfonamide (MRK-560) reduces amyloid plaque deposition without evidence of Notch-related pathology in the T J.Pharm.Exp.Ther. **320** 552. PMID: 17099072.

**Best** *et al* (2006) In vivo characterization of A $\beta$ (40) changes in brain and cerebrospinal fluid using the novel  $\gamma$ -secretase inhibitor N-[cis-4-[(4-chlorophenyl)sulfonyl]-4-(2,5-difluorophenyl)cyclohexyl]-1,1,1-trifluoromethanesulfonamide (MRK-560) J.Pharm.Exp.Ther. **317** 786. PMID: 16443723.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.comNorth AmericaChinaEurope Middle East AfricaRest of Worldinfo@bio-techne.comTel: (800) 343 7475info.cn@bio-techne.comTel: +44 (0) 1235 529449www.tocris.com/distributorstechsupport@bio-techne.comTel: +86 (21) 52380373Tel: +44 (0) 1235 529449www.tocris.com/distributors