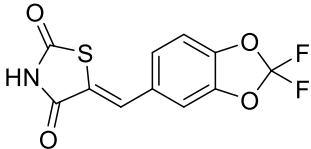


Product data sheet



MedKoo Cat#: 406318 Name: AS-604850 CAS#: 648449-76-7 Chemical Formula: C ₁₁ H ₅ F ₂ NO ₄ S Exact Mass: 284.99073 Molecular Weight: 285.22	
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:

AS-604850 is a selective PI3K γ inhibitor, which significantly reduced the number of infiltrated leukocytes in the CNS and ameliorated the clinical symptoms of EAE mice. Treatment with this PI3K γ inhibitor enhanced myelination and axon number in the spinal cord of EAE mice. PI3K γ contributes to development of autoimmune CNS inflammation and that PI3K γ blockade may provide a great potential for treating patients with MS.

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	112.33	393.84
DMSO:PBS (pH 7.2) (1:3)	0.5	1.75
DMF	20.0	70.12
Ethanol	5.0	17.53

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.51 mL	17.53 mL	35.06 mL
5 mM	0.70 mL	3.51 mL	7.01 mL
10 mM	0.35 mL	1.75 mL	3.51 mL
50 mM	0.07 mL	0.35 mL	0.70 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. Hasan AM, Mourtada-Maarabouni M, Hameed MS, Williams GT, Dent G. Phosphoinositide 3-kinase gamma mediates chemotactic responses of human eosinophils to platelet-activating factor. *Int Immunopharmacol.* 2010 Sep;10(9):1017-21. doi: 10.1016/j.intimp.2010.05.014. Epub 2010 Jun 4. PMID: 20685403.

In vivo study

1. Li H, Park D, Abdul-Muneer PM, Xu B, Wang H, Xing B, Wu D, Li S. PI3K γ inhibition alleviates symptoms and increases axon number in experimental autoimmune encephalomyelitis mice. *Neuroscience.* 2013 Dec 3;253:89-99. doi: 10.1016/j.neuroscience.2013.08.051. Epub 2013 Sep 3. PMID: 24012746.

7. Bioactivity

Biological target:

Product data sheet



AS-604850 is a potent, selective and ATP-competitive PI3K γ inhibitor with an IC₅₀ value of 0.25 μ M and a K_i value of 0.18 μ M.

In vitro activity

Preincubation with AS604850 caused a concentration-dependent inhibition of both EoL-1 cell and human peripheral blood eosinophil chemotactic responses to PAF (Fig. 1, Fig. 2). In contrast, responses to eotaxin were unaffected by the inhibitor at concentrations up to 10 μ M.

Reference: Int Immunopharmacol. 2010 Sep;10(9):1017-21. <https://pubmed.ncbi.nlm.nih.gov/20685403/>

In vivo activity

AS-604850 treatment attenuated leukocyte infiltration and clinical EAE symptoms, suggesting the protective effects of PI3K γ inhibition to CNS tissue. This study next determined whether AS-604850 treatment enhanced myelination and axon number in the spinal cord around 24 days after EAE onset by immunostaining MBP and neurofilament or by detecting myelin sheath with LFB staining. Compared to normal control mice, vehicle-treated EAE mice exhibited remarkably reduced myelin and axonal structures in the spinal cord, especially at the lumbar level (Fig. 3A and 4). Consistently, numerous groups reported obvious myelin and axonal loss along the white matter tracts in EAE mice. Nevertheless, EAE mice treated with AS-604850 displayed significantly increased MBP, LFB and NF-staining signals at different white matter areas of the spinal cord (Fig. 3A–C and 4). Therefore, systemic treatment with PI3K γ inhibitor reduced demyelination and axonal loss in EAE mice.

Reference: Neuroscience. 2013 Dec 3;253:89-99. <https://pubmed.ncbi.nlm.nih.gov/24012746/>

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.