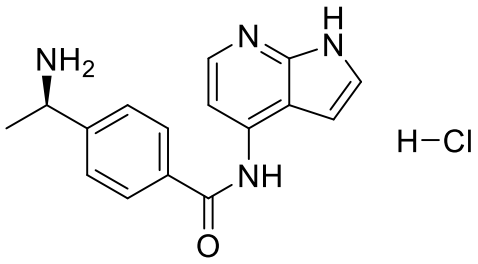
Product data sheet

MedKoo Cat#: 556052 Name: Y-39983 HCl CAS: 471843-75-1 (HCl) Chemical Formula: $C_{16}H_{17}ClN_4O$ Molecular Weight: 316.789	
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:

Y-39983, also known as Y-33075, is a potent and selective inhibitor of ROCK family with IC50 value of 3.6nM for ROCK. Y-39983 attenuates experimental autoimmune encephalomyelitis via inhibition of demyelination. Y-39983 downregulates RhoA/Rho-associated kinase expression during its promotion of axonal regeneration. Y-39983, promotes regeneration of crushed axons of retinal ganglion cells into the optic nerve of adult cats.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.16 mL	15.78 mL	31.57 mL
5 mM	0.63 mL	3.16 mL	6.31 mL
10 mM	0.32 mL	1.58 mL	3.16 mL
50 mM	0.06 mL	0.32 mL	0.63 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. Li B, Dong X, Zhang W, Chen T, Yu B, Zhao W, Yang Y, Wang X, Hu Q, Wang X. High-Throughput NanoBiT-Based Screening for Inhibitors of HIV-1 Vpu and Host BST-2 Protein Interaction. Int J Mol Sci. 2021 Aug 27;22(17):9308. doi: 10.3390/ijms22179308. PMID: 34502213; PMCID: PMC8431494.
2. Ramachandran C, Patil RV, Combrink K, Sharif NA, Srinivas SP. Rho-Rho kinase pathway in the actomyosin contraction and cell-matrix adhesion in immortalized human trabecular meshwork cells. Mol Vis. 2011;17:1877-90. Epub 2011 Jul 14. PMID: 21850162; PMCID: PMC3144732.

In vivo study

TBD

7. Bioactivity

Biological target:

Y-39983, also known as Y-33075, is a potent and selective inhibitor of ROCK family with IC50 value of 3.6nM for ROCK.

In vitro activity

Product data sheet

In subsequent cell-based BST-2 degradation assays, inhibitor Y-39983 HCl restored the cell-surface and total cellular level of BST-2 in the presence of Vpu. Furthermore, the Vpu-mediated enhancement of pesudotyped viral particle production was inhibited by Y-39983 HCl.

Reference: Int J Mol Sci. 2021 Aug 27;22(17):9308. https://pubmed.ncbi.nlm.nih.gov/34502213/

In vivo activity

TBD

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.