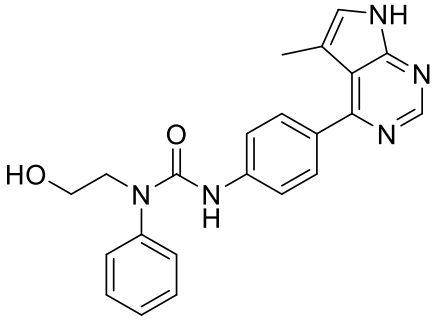
Product data sheet

MedKoo Cat#: 563564 Name: SR7826 CAS#: 1219728-20-7 Chemical Formula: $C_{22}H_{21}N_5O_2$ Exact Mass: 387.1695 Molecular Weight: 387.44	
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:
SR7826 is a potent and selective LIMK inhibitor.

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	38.74	100

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.58 mL	12.91 mL	25.81 mL
5 mM	0.52 mL	2.58 mL	5.16 mL
10 mM	0.26 mL	1.29 mL	2.58 mL
50 mM	0.05 mL	0.26 mL	0.52 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. Yu Q, Gratzke C, Wang Y, Herlemann A, Sterr CM, Rutz B, Ciotkowska A, Wang X, Strittmatter F, Stief CG, Hennenberg M. Inhibition of human prostate smooth muscle contraction by the LIM kinase inhibitors, SR7826 and LIMKi3. Br J Pharmacol. 2018 Jun;175(11):2077-2096. doi: 10.1111/bph.14201. Epub 2018 Apr 29. PMID: 29574791; PMCID: PMC5978953.

In vivo study

1. Yu Q, Wu C, Chen Y, Li B, Wang R, Huang R, Li X, Gu D, Wang X, Duan X, Li S, Liu Y, Wu W, Hennenberg M, Zeng G. Inhibition of LIM kinase reduces contraction and proliferation in bladder smooth muscle. Acta Pharm Sin B. 2021 Jul;11(7):1914-1930. doi: 10.1016/j.apsb.2021.01.005. Epub 2021 Jan 7. PMID: 34386328; PMCID: PMC8343115.

7. Bioactivity
Biological target:

SR7826 is a LIMK inhibitor (IC50 values are 43, 5536 and 6565 nM for LIMK1, ROCKI and ROCKII, respectively).

In vitro activity

SR7826 inhibited contractions of prostate strips, which were induced by electrical field stimulation, α1 -adrenoceptor agonists phenylephrine and methoxamine and the TXA2 analogue, U46619. In WPMY-1 cells, SR7826 caused breakdown of actin filaments and reduced viability.

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Reference: Br J Pharmacol. 2018 Jun;175(11):2077-2096. https://pubmed.ncbi.nlm.nih.gov/29574791/

In vivo activity

LIMK inhibitors, such as SR7826, could be a potential therapeutic strategy for overactive bladder- related lower urinary tract symptoms. Treatment with SR7826 or LIMKi3 decreased micturition frequency and bladder detrusor hypertrophy in rats with bladder outlet obstruction.

Reference: Acta Pharm Sin B. 2021 Jul;11(7):1914-1930. https://pubmed.ncbi.nlm.nih.gov/34386328/

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.