

Product data sheet



MedKoo Cat#: 532670 Name: SB 452533 CAS#: 459429-39-1 Chemical Formula: C ₁₈ H ₂₂ BrN ₃ O Exact Mass: 375.0946 Molecular Weight: 376.30		
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:

SB 452533 is a potent and selective TRPV1 antagonist.

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	100	265.75

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.66 mL	13.29 mL	26.57 mL
5 mM	0.53 mL	2.66 mL	5.31 mL
10 mM	0.27 mL	1.33 mL	2.66 mL
50 mM	0.05 mL	0.27 mL	0.53 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

- Almaghrabi SY, Geraghty DP, Ahuja KD, Adams MJ. Vanilloid-like agents inhibit aggregation of human platelets. *Thromb Res.* 2014 Aug;134(2):412-7. doi: 10.1016/j.thromres.2014.05.038. Epub 2014 Jun 6. PMID: 24953906.
- Rami HK, Thompson M, Wyman P, Jerman JC, Egerton J, Brough S, Stevens AJ, Randall AD, Smart D, Gunthorpe MJ, Davis JB. Discovery of small molecule antagonists of TRPV1. *Bioorg Med Chem Lett.* 2004 Jul 16;14(14):3631-4. doi: 10.1016/j.bmcl.2004.05.028. PMID: 15203132.

In vivo study

To be determined

7. Bioactivity

Biological target:

SB 452533 is a potent TRPV1 antagonist against capsaicin (pK_b = 7.7), noxious heat and acid-mediated (pIC₅₀ = 7.0) receptor activation (pK_i = 6.22 at the recombinant hTRPV1 receptor).

In vitro activity

This study found that SB 452533 was an antagonist versus capsaicin, noxious heat and acid mediated activation of TRPV1. Study of a quaternary salt of SB 452533 supports a mode of action in which compounds from this series (ureas) cause inhibition via an extracellularly accessible binding site on the TRPV1 receptor.

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Reference: Bioorg Med Chem Lett. 2004 Jul 16;14(14):3631-4. <https://pubmed.ncbi.nlm.nih.gov/15203132/>

In vivo activity

To be determined

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.