

Product data sheet



MedKoo Cat#: 577820 Name: BMS-223131 CAS: 275375-69-4 Chemical Formula: C ₁₈ H ₁₃ ClF ₃ NO ₃ Exact Mass: 383.0536 Molecular Weight: 383.7512	
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:

BMS-223131 is a novel opener of large conductance Ca²⁺-activated K⁺ (maxi-K) channels. BMS-223131 effectively reduced stress-induced colonic motility and visceral nociception supporting the potential utility of maxi-K channel openers for the treatment of bowel disorders involving dysfunctional motility and visceral sensitivity.

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	2.61 mL	13.03 mL	26.06 mL
5 mM	0.52 mL	2.61 mL	5.21 mL
10 mM	0.26 mL	1.30 mL	2.61 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

TBD

In vivo study

Sivarao DV, Newberry K, Langdon S, Lee AV, Hewawasam P, Plym MJ, Signor L, Myers R, Lodge NJ. Effect of 4-(5-chloro-2-hydroxyphenyl)-3-(2-hydroxyethyl)-6-(trifluoromethyl)-quinolin-2(1H)-one (BMS-223131), a novel opener of large conductance Ca²⁺-activated K⁺ (maxi-K) channels on normal and stress-aggravated colonic motility and visceral nociception. *J Pharmacol Exp Ther.* 2005 May;313(2):840-7. doi: 10.1124/jpet.104.079285. Epub 2005 Feb 8. Erratum in: *J Pharmacol Exp Ther.* 2005 Oct;315(1):476. PMID: 15701710.

7. Bioactivity

Biological target:

BMS-223131 is a novel opener of large conductance Ca²⁺-activated K⁺ (maxi-K) channels.

In vitro activity

TBD

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In vivo activity

BMS-223131 (2, 6, or 20 mg/kg i.p.) produced a small but dose-dependent and significant reduction in cumulative 24-h fecal output. Fecal output in response to stress (1-h restraint plus bursts of air to the face) was markedly inhibited by BMS-223131, and moisture content was significantly reduced. With regard to visceral pain, the transient and distention-dependent reduction in arterial pressure in anesthetized animals was inhibited by BMS-223131 in a dose-dependent manner. Distension-induced abdominal withdrawal in conscious rats was also dose-dependently attenuated by BMS-223131.

Reference: J Pharmacol Exp Ther. 2005 May;313(2):840-7. <https://pubmed.ncbi.nlm.nih.gov/15701710/>

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.