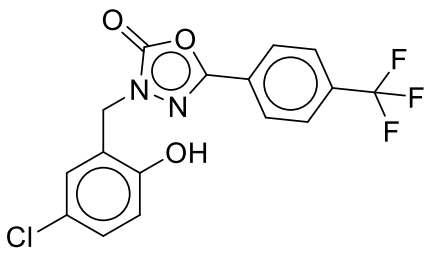
Product data sheet

MedKoo Cat#: 524445 Name: BMS-191011 CAS#: 202821-81-6 Chemical Formula: $C_{16}H_{10}ClF_3N_2O_3$ Exact Mass: 370.0332 Molecular Weight: 370.71	
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 191011 is a potent KCa1.1 (BK) channel opener. It is also neuroprotectant in two distinct animal models of stroke- MCAO in the SHR rat and a normotensive model of focal stroke.

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	20	54

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.70 mL	13.49 mL	26.98 mL
5 mM	0.54 mL	2.70 mL	5.40 mL
10 mM	0.27 mL	1.35 mL	2.70 mL
50 mM	0.05 mL	0.27 mL	0.54 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

1. Mori A, Suzuki S, Sakamoto K, Nakahara T, Ishii K. BMS-191011, an opener of large-conductance Ca2+-activated potassium channels, dilates rat retinal arterioles in vivo. Biol Pharm Bull. 2011;34(1):150-2. doi: 10.1248/bpb.34.150. PMID: 21212534.

7. Bioactivity
Biological target:

BMS-191011 (BMS-A) is an opener of the large-conductance, Ca2+-activated potassium (maxi-K) channel, effective in stroke models.

In vitro activity

The effects of BMS-191011 was examined openers of BK(Ca) channels, on rat retinal blood vessels in vivo. Male Wistar rats (8- to 10-week-old) were anesthetized with pentobarbital sodium (50 mg/kg, intraperitoneally (i.p.)) and treated with tetrodotoxin (50 µg/kg, intravenously (i.v.)) to eliminate any nerve activity and prevent movement of the eye under artificial ventilation. A mixture solution of adrenaline and noradrenaline (9:1) was infused to maintain adequate systemic circulation. BMS-191011 (10-100 µg/kg, i.v.) increased the diameter of retinal arterioles without altering systemic blood pressure and heart rate significantly. The vasodilator responses to

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BMS-191011 were significantly diminished by intravitreal injection of iberiotoxin (an inhibitor of BK(Ca) channels, 20 pmol/eye). These results suggest that BMS-191011 dilates rat retinal arterioles through activation of iberiotoxin-sensitive BK(Ca) channels in vivo. The BK(Ca) channel opener could be considered as a candidate for improving retinal circulation without severe cardiovascular side-effects.

Reference: Biol Pharm Bull. 2011;34(1):150-2. http://joi.jlc.jst.go.jp/JST.JSTAGE/bpb/34.150?from=PubMed

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.