**Product Data Sheet**

**Chemical Properties**

**Product Name:** BMS 191011  
**Cas No.:** 202821-81-6  
**M.Wt:** 370.71  
**Formula:** C16H10ClF3N2O3  
**Chemical Name:** 3-(5-chloro-2-hydroxybenzyl)-5-(4-(trifluoromethyl)phenyl)-1,3,4-oxadiazol-2(3H)-one  
**Canonical SMILES:** ClC1=CC=C(C(CN2N=C(C3=CC=C(C(F)(F)F)C=C3)OC2=O)=C1)O  
**Solubility:** Soluble in DMSO > 10 mM  
**Storage:** Store at RT  
**General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.  
**Shopping Condition:** Evaluation sample solution: ship with blue ice  
All other available size: ship with RT, or blue ice upon request

**Biological Activity**

**Targets:** Membrane Transporter/Ion Channel  
**Pathways:** Potassium Channel  
**Description:**

BMS 191011 is a maxi-K channel opener [1]. Maxi-K channels consist of a pore-forming α subunit and a regulatory β subunit. Maxi-K channels are of a high Ca2+ sensitivity [2]. Bath application of BMS-191011 at a concentration of 20 μM strongly reduced the calcium transients. This effect was associated with bursts of bAPs (100 Hz) recorded from Fmr1/-y dendrites without affecting those recorded from wild-type dendrites. This treatment decreased
dendritic calcium transients of Fmr1-/y neurons to baseline levels of wild-type neurons [3]. In normoxia, BMS-191011 significantly induced cell death. This effect was indicted by the increases in propidium iodide (PI) uptake by 9.4 ± 2.4 and 16.8 ± 2.1% at 12 and 24 h treatments, respectively. At 12 h and then 24 h, the cellular [ATP] was decreased to 83.4 ± 3.1 and further to 72.3 ± 2.8%. During hypoxia, these effects were increased by ~2-fold in all time points and measurements. PI uptake was increased to 15.1 ± 1.8 at 12 h and then 40.7 ± 1.7% at 24 h. Cellular [ATP] was decreased to 77.8 ± 1.9 at 12 h and then to 43.3 ± 3.4% at 24 h [4]. In male Wistar rats of 8 to 10 weeks old, an i.v. administration with BMS-191011 at 10-100 µg/kg/min increased the retinal arteriol diameter, whereas it did not significantly affect mean arterial pressure and heart rate. Intravitreal injection of iberiotoxin at a dose of 20 pmol/eye significantly attenuated the vasodilator responses of retinal arterioles to BMS-191011 [5]. BMS-191011 demonstrated efficacy as an opener of the cloned large-conductance Ca2+-activated potassium ( maxi-K ) channel in in vivo stroke models [6].

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.