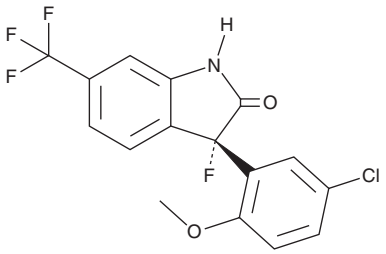
PRODUCT INFORMATION

BMS 204352

Item No. 29378

CAS Registry No.: 187523-35-9
Formal Name: (3S)-3-(5-chloro-2-methoxyphenyl)-3-fluoro-1,3-dihydro-6-(trifluoromethyl)-2H-indol-2-one
Synonym: (+)-BMS 204352
MF: $C_{16}H_{10}ClF_4NO_2$
FW: 359.7
Purity: ≥98%
UV/Vis.: λ_{max}: 211 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

BMS 204352 is supplied as a crystalline solid. A stock solution may be made by dissolving the BMS 204352 in the solvent of choice, which should be purged with an inert gas. BMS 204352 is soluble in the organic solvent DMSO.

Description

BMS 204352 is an activator of large-conductance calcium-activated potassium ($K_{Ca}1.1$/BK) channels that increases $K_{Ca}1.1$ currents in *X. laevis* oocytes expressing human $K_{Ca}1.1$ in a calcium- and concentration-dependent manner.[1] It decreases electrically induced population excitatory postsynaptic potentials (pEPSPs) *in vitro* in CA1 rat neurons and in anesthetized rats when administered at doses ranging from 0.005 to 1 mg/kg. BMS 204352 (0.001 and 0.3 mg/kg) reduces infarct volume in a rat model of ischemic stroke induced by middle cerebral artery occlusion (MCAO). It decreases edema in the ipsilateral hippocampus, thalamus, and adjacent cortex and time to find the platform in the Morris water maze in a rat model of fluid percussion-induced traumatic brain injury (TBI).[2] BMS 204352 also reverses cortical hyperexcitability and reduces hyperactivity and grooming behaviors in the *Fmrl*$^{-/-}$ mouse model of Fragile X syndrome.[3] Formulations containing BMS 204352 have been used in the treatment of ischemic stroke.

References

1. Gribkoff, V.K., Starrett, J.E., Jr., Dworetzky, S.I., *et al.* Targeting acute ischemic stroke with a calcium-sensitive opener of maxi-K potassium channels. *Nat. Med.* **7(4)**, 471-477 (2001).
2. Cheney, J.A., Weisser, J.D., Bareyre, F.M., *et al.* The maxi-K channel opener BMS-204352 attenuates regional cerebral edema and neurologic motor impairment after experimental brain injury. *J. Cereb. Blood Flow Metab.* **21(4)**, 396-403 (2001).
3. Carreno-Munoz, M.I., Martins, F., Medrano, M.C., *et al.* Potential involvement of impaired BK_{Ca} channel function in sensory defensiveness and some behavioral disturbances induced by unfamiliar environment in a mouse model of fragile X syndrome. *Neuropsychopharmacology* **43(3)**, 492-502 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM