Inhibitors, Agonists, Screening Libraries

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Data Sheet

Product Name: BW 245C
Cat. No.: HY-101987
CAS No.: 72814-32-5
Molecular Formula: C_{19}H_{32}N_{2}O_{5}
Molecular Weight: 368.47
Target: Prostaglandin Receptor
Pathway: GPCR/G Protein
Solubility: DMSO

BIOLOGICAL ACTIVITY:

BW 245C is a prostanoid DP–receptor (DP1) agonist, used to treat stroke.

In Vitro: BW245C (0.01–1 μM) suppresses TGF–β–induced collagen secretion in a dose–dependent manner in Th2 cells. BW245C (0.01–1 μM) also increases intracellular cAMP in lung fibroblasts[3]. BW245C (0.1–3 μmol/L) dose–dependently increases transendothelial electrical resistance and decreases the FITC–dextran permeability of human umbilical vein endothelial cells. BW245C (0.3 μmol/L) increases the intracellular cAMP level and subsequent protein kinase A (PKA) activity[4].

In Vivo: BW245C (0.02, 0.2, and 2.0 mg/kg) in WT mice results in a significant increase in CBF, but this effect of this treatment is absent in DP1⁻/⁻ mice. BW245C attenuates functional deficits after stroke. BW245C significantly reverses these conditions that neurologic deficit is significantly augmented, whereas locomotor activity is significantly reduced after stroke in WT mice. BW245C (0.2 mg/kg) injection 1 h after stroke results in a significant decrease in brain infarction in WT mice, whereas the effect of this treatment is not observed in DP1⁻/⁻ mice. BW245C improves CBF during and after stroke. BW245C results in significantly prolonged bleeding compared with the vehicle–treated group[1]. BW 245C (100 nM) does not significantly increase MBP–positive eosinophils in esophageal epithelium in OVA–sensitized guinea pigs[2].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: BW 245C is dissolved in 1% DMSO.[1] The mice are untreated or given an i.p. injection of the vehicle (1% DMSO) or 0.2–mg/kg BW245C. Thirty minutes after the injection, the mice are anesthetized and placed on a thermoregulated pad to maintain body temperature, and 3 mm of the tail tip is excised. The tail is immediately dipped in warm PBS (37.0±0.5°C) and time to visible cessation of bleeding is recorded.

References:

Caution: Product has not been fully validated for medical applications. For research use only.
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