MULTISCREEN^{TM} STABLE CELL LINE
DOG RECOMBINANT B2 RECEPTOR

Data Sheet

PRODUCT INFORMATION

Catalog Number: Cd1199

Lot Number: Cd1199-031516

Quantity: 1 vial (2 x 10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length dog B2 cDNA (GenBank Accession Number NM_001003095.1) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 µg/mL puromycin

Stability: Stability in progress

Background: Bradykinin receptor B2 is a constitutively expressed G protein-coupled receptor. In canines, recent studies revealed that the canine heart can be preconditioned by an abdominal surgical incision to mediate a protective effect through the activation of the B2 receptor. In the presence of the B2 antagonist HOE140, the protective effect was not observed. Thus, B2 antagonists may be a promising new class of compounds to treat ischemic heart disease or for clinical use after the onset of cerebral ischemia.

Application: Functional assays

Figure 1

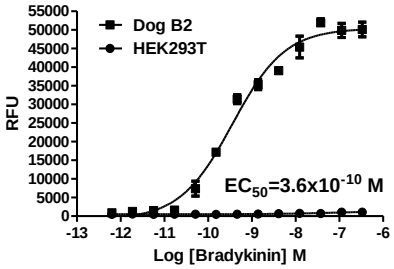

Figure 2

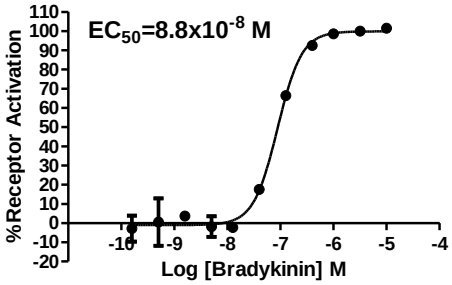

Figure 3

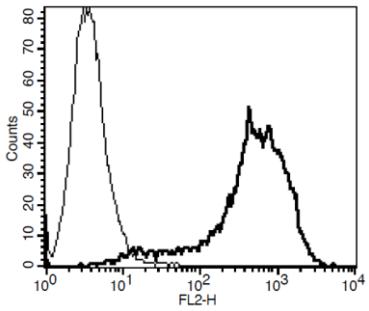

Figure 1. Dose-dependent calcium flux upon treatment with ligand, monitored with FLIPR. **Figure 2.** Dose-dependent increase of intracellular cAMP level upon treatment with ligand. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Gross, G. J., Baker, J. E., Moore, J., Falck, J. R., & Nithipatikom, K. (2011). Abdominal Surgical Incision Induces Remote Preconditioning of Trauma (RPCT) via Activation of Bradykinin Receptors (BK2R) and the Cytochrome P450 Epoxygenase Pathway in Canine Hearts. *Cardiovascular Drugs and Therapy*, *25*(6), 517–522.

Heitsch (2003) The therapeutic potential of bradykinin B2 receptor agonists in the treatment of cardiovascular disease. Expert Opin Investig Drugs 12:759-770.

Jones, W. K., Fan, G.-C., Liao, S., Zhang, J.-M., Wang, Y., Weintraub, N. L., … Ren, X. (2009). Peripheral Nociception Associated With Surgical Incision Elicits Remote Nonischemic Cardioprotection Via Neurogenic Activation of Protein Kinase C Signaling. *Circulation*, *120*(11 Suppl), S1–S9.

FOR RESEARCH USE ONLY.