

**MULTISCREEN™ STABLE CELL LINE**  
**GUINEA PIG RECOMBINANT B2 RECEPTOR**

**Data Sheet**

**PRODUCT INFORMATION**

**Catalog Number:** Cc1199

**Lot Number:** Cc1199-031516

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length guinea pig B2 cDNA (GenBank Accession Number XM\_013144370) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

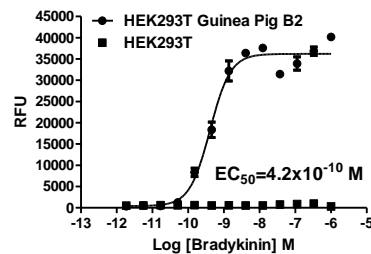
**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin

**Stability:** Stability in progress

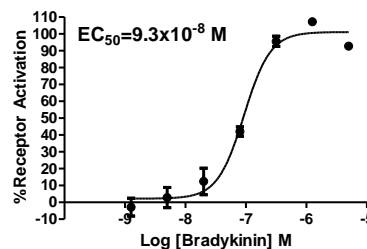
**Background:** Bradykinin receptor B2 is a constitutively expressed G protein-coupled receptor. In guinea pigs, the B2 receptor is expressed in the submucosal and myenteric plexuses. The activation of the B2 receptor by the ligand bradykinin stimulates neurogenic chloride secretion in the guinea pig ileum through COX increasing PGE2 production. Recent studies on pregnant guinea pigs, revealed the importance B2 plays in regulating blood pressure and trophoblast invasion during placental development. These results suggest that B2 may be a promising target for treating abnormal placentation and related disorders.

**Application:** Functional assays

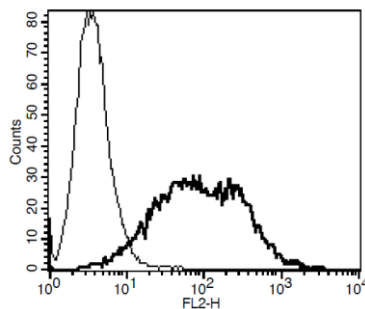
**Figure 1**



**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:**

- Kawaguchi, A., Sato, M., Kimura, M., Yamazaki, T., Yamamoto, H., Tazaki, M., ... Shibukawa, Y. (2015). Functional expression of bradykinin B<sub>1</sub> and B<sub>2</sub> receptors in neonatal rat trigeminal ganglion neurons. *Frontiers in Cellular Neuroscience*, 9, 229. <http://doi.org/10.3389/fncel.2015.00229>
- Qu, M.-H., Ji, W.-S., Zhao, T.-K., Fang, C.-Y., Mao, S.-M., & Gao, Z.-Q. (2016). Neurophysiological mechanisms of bradykinin-evoked mucosal chloride secretion in guinea pig small intestine. *World Journal of Gastrointestinal Pathophysiology*, 7(1), 150–159.
- Valdés, G., Schneider, D., Corthorn, J., Ortíz, R., Acuña, S., & Padilla, O. (2014). Administration of angiotensin II and a bradykinin B<sub>2</sub> receptor blocker in midpregnancy impairs gestational outcome in guinea pigs. *Reproductive Biology and Endocrinology: RB&E*, 12, 49. <http://doi.org/10.1186/1477-7827-12-49>

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