

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT BB3 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1214

**Lot Number:** C1214-073005

**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 human BRS3 cDNA (GenBank Accession Number NM\_001727) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

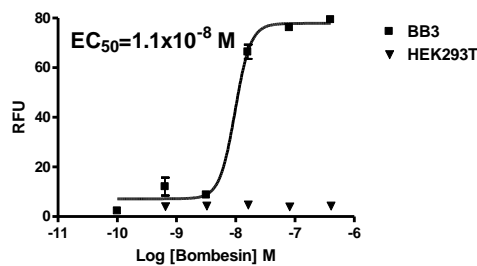
**Propagation Medium:** DMEM, 10% FBS, 1  $\mu$ g/mL puromycin

**Stability:** Stable after minimum of two months continuous growth

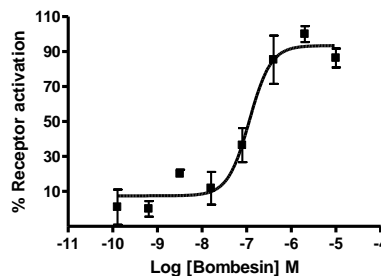
**Background:** The bombesin-like peptides mediate a diverse spectrum of biological activities and have been implicated as autocrine growth factors in the pathogenesis and progression of cancer. The bombesin receptor subtype 3 (BB3 or BRS3) is expressed in the lung (normal and cancer), nasal mucosa, placenta, and uterus. Mice lacking BB3 receptor develop metabolic defects and obesity phenotype, suggesting that BB3 may be an important target for obesity research. In addition, BB3 may be involved in diabetes and hypertension.

**Application:** Functional assays

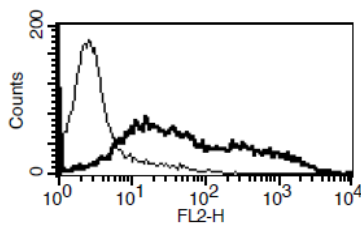
**Figure 1**



**Figure 2**



**Figure 3**



**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent accumulation of intracellular IP1 upon treatment with ligand, measured with IP-one Tb kit (Cisbio 62IPAPEC). **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:**

Fathi *et al.* (1993) BRS-3: a novel bombesin receptor subtype selectively expressed in testis and lung carcinoma cells. *J Biol Chem* 268:5979-5984.

Mantey *et al.* (1997) Discovery of a high affinity radioligand for the human orphan receptor, bombesin receptor subtype 3, which demonstrates that it has a unique pharmacology compared with other mammalian bombesin receptors. *J Biol Chem* 272:26062-26071.

Maekawa *et al.* (2004) Leptin resistance and enhancement of feeding facilitation by melanin-concentrating hormone in mice lacking bombesin receptor subtype-3. *Diabetes* 53:570-576.

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