

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT PTH1 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1301

Lot Number: C1301-041113

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

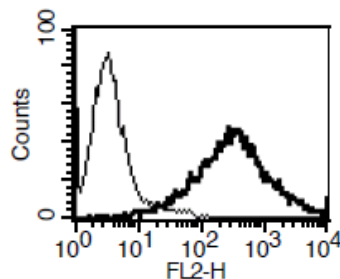
Transfection: Full-length Human PTH1R cDNA (GenBank Accession Number NM_000316.2) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: In progress

Figure 3



Background: Parathyroid hormone receptor (PTH1R) functions as a receptor for parathyroid hormone (PTH) and parathyroid hormone-related protein (PTHrP). It is expressed in high levels in bone and kidney and mediates mineral ion homeostasis as well as the paracrine actions of PTHrP, which is important in the process of endochondral bone formation. Defects in PTH1R can cause chondrodysplasia and enchondromatosis. The development of novel PTH receptor ligands could prove to be valuable in the treatment of diseases such as osteoporosis and hypercalcemia.

Application: Functional assays

Figure 1

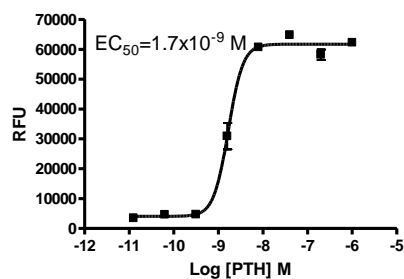


Figure 2

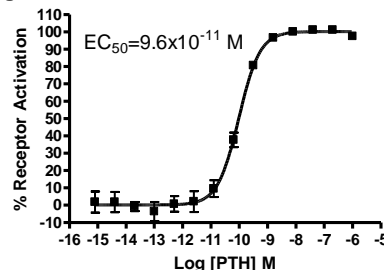


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

Figure 2. Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01).

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:

Mannstadt *et al.* (1999) Receptors for PTH and PTHrP: their biological importance and functional properties. *Am. J. Physiol.* 277 (5 Pt 2): F665-75.

Langub *et al.* (2001) Parathyroid hormone/parathyroid hormone-related peptide type 1 receptor in human bone. *J. Bone. Miner. Res.* 16: 448-456.

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