

MULTISCREEN™ STABLE CELL LINE
RAT RECOMBINANT KiSS1 (GPR54) RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1036-1

Lot Number: C1036-1-061505

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO dhfr⁻

Transfection: Full-length rat GPR54 cDNA (GenBank Accession Number NM_023992)

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: Alpha-MEM, 10% FBS, 800 µg/mL G418

Stability: Stable in culture for minimum of two months

Data sheet

Background: The Kisspeptin receptor KiSS1 is also known as metastin receptor or GPR54. Kisspeptin is a metastasis suppressor protein that suppresses metastasis in malignant melanomas and in some breast carcinomas without affecting tumorigenicity. The metastasis suppressor properties may be mediated in part by cell cycle arrest and induction of apoptosis in malignant cells. The KiSS1 receptor is involved in thyroid cancer, esophageal squamous cell carcinoma and hepatocellular carcinoma.

Application: Functional assays

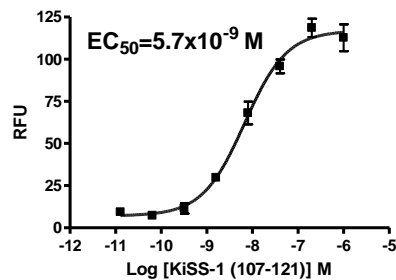


Figure legend: Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FlexStation.

References:

Shahab *et al.* (2005) Increased hypothalamic GPR54 signaling: a potential mechanism for initiation of puberty in primates. *Proc Natl Acad Sci USA* 102:2129-2134.

Becker *et al.* (2005) Activation of GPR54 promotes cell cycle arrest and apoptosis of human tumor cells through a specific transcriptional program not shared by other Gq-coupled receptors. *Biochem Biophys Res Commun* 326:677-686.

Ikeguchi *et al.* (2004) Clinical significance of the loss of KiSS-1 and orphan G-protein-coupled receptor (hOT7T175) gene expression in esophageal squamous cell carcinoma. *Clin Cancer Res* 10:1379-1383.

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