MULTISCREEN™ DIVISION ARRESTED CELL LINE HUMAN RECOMBINANT FPR1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: DC1243a

Lot Number: DC1243a-040423

Quantity: 1 vial (4 x 10^6) frozen cells

Freeze Medium: Cellbanker 2

Host cell: HEK293T

Transfection: Expression vector containing full-length human FPR1 cDNA (GenBank Accession Number NM_002029.3) with FLAG tag sequence at N-terminus.

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS

Background: The gene FPR1 encodes the formylpeptide receptor (FPR), which is a G-protein-coupled receptor that mediates chemotaxis of phagocytic leukocytes induced by bacterial peptide N-formyl-methionyl-leucyl-phenylalanine (fMLP). Agonist binding to FPR in phagocytic leukocytes leads to the activation of phosphatidylinositol 3-kinase (PI3K), mitogen-activated protein kinases (MAPKs), and the transcription factor nuclear factor (NF)-kB via heterotrimeric $_{Gai}$ proteins. FPR is involved in host defense against bacterial infection and in the clearance of damaged cells. Recently a large number of non-formylated peptide ligands for FPR have now been identified. Some of the new ligands (e.g. Ac1–26 from annexin) are endogenous in origin, and some come from pathogens that are associated with human diseases such as HIV, which have suggested novel roles for this receptor in the regulation of acute and chronic inflammation as well as host responses during HIV-1 infection.

Application: Functional assays

Figure 1

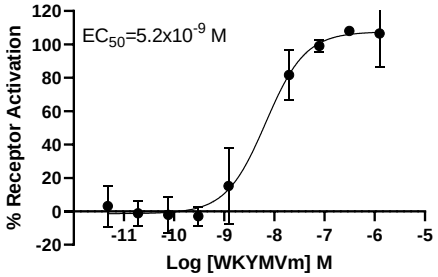

Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with MULTISCREEN™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01).

References:

Le *et al.* (2002) Formyl-peptide receptors revisited. *Trends Immunol* 23:541-548.

Torres and Ye (1996) Activation of the mitogen-activated protein kinase pathway by fMet-leu-Phe in the absence of Lyn and tyrosine phosphorylation of SHC in transfected cells. *J Biol Chem* 271:13244-13249.

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