MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT PAR1 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1207-7

Lot Number: C1207-7-050313

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: Hela

Transfection: Expression vector containing full-length human PAR1 cDNA (GenBank Accession Number NM_001992).

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 1X NEAA, 1 µg/mL puromycin

Stability: Stable in culture for a minimum of 2 months

Data sheet

Background: PAR1 is one of the four members of G protein-coupled protease-activated receptor family (PAR1, PAR2, PAR3, and PAR4). PAR1 is activated by coagulant protease thrombin via an irreversible proteolytic mechanism: thrombin specifically cleaves the extracellular N-termini of the receptor to unmask a new amino acid terminus, which in turn acts as a peptide ligand by binding intramolecularly to the body of the receptor. An increased thrombin generation and PAR1 expression are observed on cells within atherosclerotic plaque and thrombus and following vascular injury. PAR1 may play important role in thrombosis and restenosis and thus a PAR1 antagonist possesses the therapeutic potential in treating these diseases.

Application: Functional assays

Figure 1

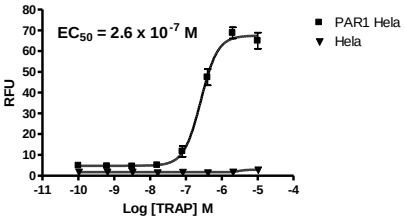

Figure 2

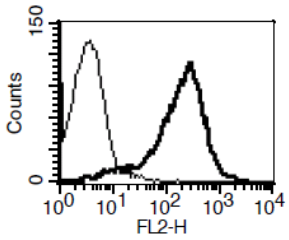

Figure 1. Dose-dependent calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Ahn *et al.* (2003) Development of proteinase-activated receptor 1 antagonists as therapeutic agents for thrombosis, restenosis and inflammatory diseases. *Curr Pharm Des* 9:2349-2365.

Trejo (2003) Protease-activated receptors: new concepts in regulation of G protein coupled receptor signaling and trafficking. *J Pharmacol Exp Ther* 307:437-442.

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