



Human Protease-Activated PAR2 Stable Cell Line

Catalog Number: A662

Batch 732

SPECIFICATIONS:

Synonyms: F2RL1, coagulation factor II (thrombin) receptor-like 1.

Host cell: CHO-K1

Expressed gene: Amino acid sequence corresponds exactly to Genbank Accession Number NM_005242; no expressed tags.

Mycoplasma Status: Negative (MycoAlert Kit)

Stability: 12 passages (6 weeks of continuous culture)

Packaging: Cryopreserved cells, 6 million cells per vial.

Propagation media: Ham's F12, 10% FBS, 0.4 mg/mL G418

Storage Recommendation: Liquid nitrogen

BACKGROUND: Protease-activated receptor-2 (PAR2) belongs to a four-member family of GPCRs that are activated by proteases (see Ossovskaya et al for review). These proteases cleave a specific extracellular amino-terminal domain of the receptor to reveal a tethered ligand, which in turn activates the receptor which couples via Gq to release intracellular calcium (Nystedt, S. et al., 1995). PAR2 is expressed in the vasculature, GI tract, CNS, lung, kidney, liver, and heart. PAR2 is a relevant target for arthritis, inflammation, bowel disease, and cancer.

REPRESENTATIVE DATA:

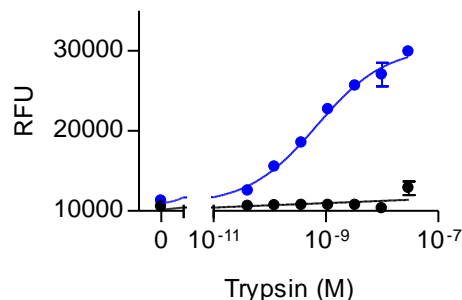


Figure 1. Intracellular calcium response from CHO-K1 cells stably expressing human PAR2 receptors (blue) or untransfected control cells (black). Cells were loaded with Fluo-4NW then stimulated with the indicated concentrations of trypsin. Calcium responses were recorded on a FlexStation plate reader. Data represent the average \pm standard deviation of triplicate determinations.

REFERENCES:

- Nystedt, S., et al., (1995) Molecular cloning and functional expression of the gene encoding the human proteinase-activated receptor 2. *Eur. J. Biochem.* 232 84-89
- Ossovskaya, V.S and Bunnett, N.W. (2004) Protease-activated receptors: contribution to physiology and disease. *Physiol. Rev* 84: 579-621.

FOR NON-HUMAN INVESTIGATIONAL RESEARCH USE ONLY.

Applied Cell Sciences
9430 Key West Avenue, Suite 200
Rockville, MD 20850

Tel: 240-453-6331
Fax: 301-309-9448
www.appliedcellsci.com