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Anti-PAR2 Picoband Antibody

Catalog # ABO12386

Product Information

Application	WB
Primary Accession	P55085
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Proteinase-activated receptor 2(F2RL1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2150
Other Names	Proteinase-activated receptor 2, PAR-2, Coagulation factor II receptor-like 1, G-protein coupled receptor 11, Thrombin receptor-like 1, Proteinase-activated receptor 2, alternate cleaved 1, Proteinase-activated receptor 2, alternate cleaved 2, F2RL1, GPR11, PAR2
Calculated MW	44126
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cell membrane; Multi-pass membrane protein.
Tissue Specificity	Widely expressed in tissues with especially high levels in pancreas, liver, kidney, small intestine, and colon. Moderate expression is detected in many organs, but none in brain or skeletal muscle.
Source	Eukaryota
Protein Name	Proteinase-activated receptor 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PAR2 (349-383aa HDFRDHAKNALLCRSVRTVKQMQVSLTSKKHSRKS), different from the related mouse sequence by eight amino acids, and from the related rat sequence by seven amino acids.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

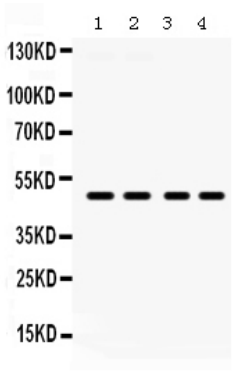
Name	F2RL1
Synonyms	GPR11, PAR2
Function	Receptor for trypsin and trypsin-like enzymes coupled to G proteins (PubMed:28445455). Its function is mediated through the activation of several signaling pathways including phospholipase C (PLC), intracellular calcium, mitogen-activated protein kinase (MAPK), I-kappaB kinase/NF-kappaB and Rho (PubMed:28445455). Can also be transactivated by cleaved F2R/PAR1. Involved in modulation of inflammatory responses and regulation of innate and adaptive immunity, and acts as a sensor for proteolytic enzymes generated during infection. Generally is promoting inflammation. Can signal synergistically with TLR4 and probably TLR2 in inflammatory responses and modulates TLR3 signaling. Has a protective role in establishing the endothelial barrier; the activity involves coagulation factor X. Regulates endothelial cell barrier integrity during neutrophil extravasation, probably following proteolytic cleavage by PRTN3 (PubMed:23202369). Proposed to have a bronchoprotective role in airway epithelium, but also shown to compromise the airway epithelial barrier by interrupting E-cadherin adhesion (PubMed:10086357). Involved in the regulation of vascular tone; activation results in hypotension presumably mediated by vasodilation. Associates with a subset of G proteins alpha subunits such as GNAQ, GNA11, GNA14, GNA12 and GNA13, but probably not with G(o)-alpha, G(i) subunit alpha-1 and G(i) subunit alpha-2. However, according to PubMed:21627585 can signal through G(i) subunit alpha. Believed to be a class B receptor which internalizes as a complex with arrestin and traffic with it to endosomal vesicles, presumably as desensitized receptor, for extended periods of time. Mediates inhibition of TNF stimulated JNK phosphorylation via coupling to GNAQ and GNA11; the function involves dissociation of RIPK1 and TRADD from TNFR1. Mediates phosphorylation of nuclear factor NF-kappa-B RELA subunit at 'Ser-536'; the function involves IKBKB and is predominantly independent of G proteins. Involved in cellular migration. Involved in cytoskeletal rearrangement and chemotaxis through beta-arrestin-promoted scaffolds; the function is independent of GNAQ and GNA11 and involves promotion of cofilin dephosphorylation and actin filament severing. Induces redistribution of COPS5 from the plasma membrane to the cytosol and activation of the JNK cascade is mediated by COPS5. Involved in the recruitment of leukocytes to the sites of inflammation and is the major PAR receptor capable of modulating eosinophil function such as pro-inflammatory cytokine secretion, superoxide production and degranulation. During inflammation promotes dendritic cell maturation, trafficking to the lymph nodes and subsequent T-cell activation. Involved in antimicrobial response of innate immune cells; activation enhances phagocytosis of Gram-positive and killing of Gram-negative bacteria. Acts synergistically with interferon-gamma in enhancing antiviral responses. Implicated in a number of acute and chronic inflammatory diseases such as of the joints, lungs, brain, gastrointestinal tract, periodontium, skin, and vascular systems, and in autoimmune disorders. Probably mediates activation of pro-inflammatory and pro-fibrotic responses in fibroblasts, triggered by coagulation factor Xa (F10) (By similarity). Mediates activation of barrier protective signaling responses in endothelial cells, triggered by coagulation factor Xa (F10) (PubMed:22409427).

Cellular Location	Cell membrane; Multi-pass membrane protein.
Tissue Location	Widely expressed in tissues with especially high levels in pancreas, liver, kidney, small intestine, and colon (PubMed:7556175, PubMed:8615752). Moderate expression is detected in many organs, but none in brain or skeletal muscle (PubMed:7556175, PubMed:8615752). Expressed in endothelial cells (PubMed:23202369)

Background

Protease activated receptor 2 (PAR2), also known as coagulation factor II (thrombin) receptor-like 1(F2RL1) or G-protein coupled receptor 11 (GPR11), is a protein that in humans is encoded by the F2RL1 gene. F2RL1 is a member of the large family of 7-transmembrane-region receptors that couple to guanosine-nucleotide-binding proteins. F2RL1 is also a member of the protease-activated receptor family. It is activated by trypsin, but not by thrombin. It is activated by proteolytic cleavage of its extracellular amino terminus. The new amino terminus functions as a tethered ligand and activates the receptor. The F2RL1 gene contains two exons and is widely expressed in human tissues. Additionally, PAR2 modulates inflammatory responses and acts as a sensor for proteolytic enzymes generated during infection.

Images



Anti- PAR2 Picoband antibody, ABO12386, Western blottingAll lanes: Anti PAR2 (ABO12386) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: COLO320 Whole Cell Lysate at 40ugLane 3: SW620 Whole Cell Lysate at 40ugLane 4: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 44KDObserved bind size: 49KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.