Protease Activated Receptor 2 (PAR2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Protease Activated Receptor 2 (PAR2), Polyclonal Antibody
Full Product Name	FITC-Linked Polyclonal Antibody to Protease Activated Receptor 2 (PAR2)
Product Gene Name	anti-PAR2 antibody
Product Synonym Names	PAR2/Protease Activated Receptor 2; F2RL1; F2-RL1; GPR11; PAR2; Coagulation Factor II(thrombin)receptor-Like 1; G-protein coupled receptor 11; Thrombin receptor-like 1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Liquid; PBS, pH7.4, containing 0.02% NaN3, 50% glycerol.
Purity/Purification	Affinity Chromatography
Concentration	>=0.5mg/mL (Please refer to the vial label for the specific concentration.) (lot specific)
Specificity	The antibody is a Rabbit polyclonal Antibody raised against Protease Activated Receptor 2 (PAR2). It has been selected for its ability to recognize PAR2 in immunohistochemical staining and western blotting.
Preparation and Storage	Store at 4 degree C for frequent use, -20 degree C for 24 months The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: PAR2 (MBS2126705) FITC Conjugated Antibody: PAR2 (MBS2125928)
Molecular Weight	44,752 Da
3D Structure	ModBase 3D Structure for P55086
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen	Recombinant proteins/RP
Sequence of Immunogen	Val311?Tyr399, with N-terminal His and GST Tag
Organism Species	Mouse
Conjugation	FITC
Product Categories/Family for anti-PAR2 antibody	Signal transduction; Primary, FITC-labeled
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-PAR2 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunoprecipitation (IP)
Application Notes for anti-PAR2 antibody	WB: 0.5-2ug/mL IHC: 5-20ug/mL ICC: 5-20ug/mL

Related Product Information for anti-PAR2 antibody	MBS2125928 is an antibody targeting PAR2. Also known as FITC-Linked Polyclonal Antibody to Protease Activated Receptor 2 (PAR2). Reactive in Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-PAR2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PAR2. It may not necessarily be applicable to this product.

NCBI GI #	171542817
NCBI GeneID	14063
NCBI Accession #	NP_032000.3
UniProt Primary Accession #	P55086
UniProt Related Accession #	P55086
GenBank Nucleotide #	NM_007974.4
NCBI Official Full Name	proteinase-activated receptor 2
NCBI Official Synonym Full Names	coagulation factor II (thrombin) receptor-like 1
NCBI Official Symbol	F2rl1
NCBI Official Synonym Symbols	Par2; PAR-2; Gpcr11
UniProt Protein Name	Proteinase-activated receptor 2
UniProt Synonym Protein Names	Coagulation factor II receptor-like 1; G-protein coupled receptor 11; Thrombin receptor-like 1
Protein Family	Serine/threonine-protein phosphatase
UniProt Gene Name	F2rl1
UniProt Synonym Gene Names	Gpcr11; Gpr11; Par2; PAR-2
UniProt Entry Name	PAR2_MOUSE
NCBI Protein Information	proteinase-activated receptor 2

UniProt Comments for PAR2	F2RL1: a G-protein coupled receptor for trypsin and trypsin-like enzymes. Acts as a sensor for proteolytic enzymes generated during infection. Modulates pro-inflammatory responses, and innate and adaptive immunity. It is activated by proteolytic cleavage of its extracellular amino terminus. The new amino terminus functions as a tethered ligand and activates the receptor. Activates several signaling molecules including phospholipase C (PLC), mitogen-activated protein kinase (MAPK), IKK/NFkB and Rho. Elevates intracellular calcium. Can also be transactivated by cleaved PAR1. 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. Proposed to have a bronchoprotective role in airway epithelium, but also shown to compromise the airway epithelial barrier by interrupting E-cadherin adhesion. 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 G alpha-q, G alpha-11, G alpha-14, G alpha- 12 and G alpha-13, but probably not with G(o) alpha, G(i) subunit alpha-1 and G(i) subunit alpha-2. However, may signal through G(i) subunit alpha. Believed to be a class B receptor that 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-alpha stimulated JNK phosphorylation via coupling to G alpha-q/11; the function involves dissociation of RIPK1 and TRADD from TNFR1. Involved in cellular migration. Involved in cytoskeletal rearrangement and chemotaxis through beta-arrestin-promoted scaffolds; the function is independent of G alpha-q/11 and involves promotion of cofilin dephosphoryltaion 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 proinflammatory 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. 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. Belongs to the G-protein coupled receptor 1 family. Protein type: Membrane protein, integral; GPCR, family 1; Membrane protein, multi-pass; Receptor, GPCR Cellular Component: cytosol; early endosome; integral to membrane; integral to plasma membrane; membrane; plasma membrane; pseudopodium Molecular Function: G-protein alpha-subunit binding; G-protein beta-subunit binding; G-protein coupled receptor activity; heterotrimeric G-protein binding; signal transducer activity; thrombin receptor activity Biological Process: blood coagulation; defense response to virus; elevation of cytosolic calcium ion concentration; G-protein coupled receptor protein signaling pathway; immune system process; inflammatory response; innate immune response; interleukin-1 beta secretion; leukocyte migration; negative regulation of JNK cascade; negative regulation of toll-like receptor 3 signaling pathway; neutrophil activation; positive regulation of actin filament depolymerization; positive regulation of cell migration; positive regulation of chemotaxis; positive regulation of cytokine secretion during immune response; positive regulation of eosinophil degranulation; positive regulation of glomerular filtration; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of JNK cascade; positive regulation of leukocyte chemotaxis; positive regulation of phagocytosis, engulfment; positive regulation of phosphoinositide 3-kinase cascade; positive regulation of positive chemotaxis; positive regulation of pseudopodium formation; positive regulation of Rho protein signal transduction; positive regulation of superoxide release; positive regulation of toll-like receptor 2 signaling pathway; positive regulation of toll-like receptor 3 signaling pathway; positive regulation of toll-like receptor 4 signaling pathway; positive regulation of transcription from RNA polymerase II promoter; positive regulation of vasodilation; regulation of blood coagulation; regulation of I-kappaB kinase/NF-kappaB cascade; regulation of JNK cascade; signal transduction; T cell activation during immune response
Research Articles on PAR2	**1.** HAI-1 may have a critical role in maintaining normal keratinocyte morphology through regulation of PAR-2-dependent p38 mitogen-activated protein kinase signaling.
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