



Mouse anti-Human Thrombin Receptor/PAR1 monoclonal antibody, clone 25 (CABT-B9338)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human Thrombin Receptor/PAR1 aa. 33-153
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse
Clone	25
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 µg/ml
Size	50 µg, 150 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction Thrombin is a serine protease that regulates the activity of many cell types including the

activation of platelets after vascular injury. Thrombin functions are mediated by G-protein-coupled protease-activated receptors that are homologous to substance P and thyrotropin receptors. Thrombin receptors (PAR1, PAR3, and PAR4) are seven transmembrane domain proteins with large N-terminal exodomains that contain a thrombin cleavage site (LDPR/S). Thrombin binds to the exodomain and cleaves the peptide bond between Arg-41 and Ser-42. This unmask a new N-terminus with the sequence SFLLRN that acts as a tethered ligand. SFLLRN binds to the body of the thrombin receptor leading to irreversible activation. Both phosphorylation of the thrombin receptor and internalization may uncouple downstream signaling. PAR1 protein is expressed in vascular endothelial cells, smooth muscle cells, and macrophages, while PAR1 mRNA is expressed at higher levels in neonatal rat brain and lower levels in skeletal muscle, liver, and kidney. Thus, G-protein signaling via thrombin receptors, like PAR1, may be important for a diverse array of cellular functions, such as platelet activation and neural development.

Keywords	F2R; coagulation factor II (thrombin) receptor; TR; HTR; CF2R; PAR1; PAR-1; proteinase-activated receptor 1; protease-activated receptor 1; N2-11
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GENE INFORMATION

Entrez Gene ID	2149
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UniProt ID	A0A024RAP7
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