Prothrombin (F2) Antibody – Sheep Polyclonal

PRODUCT OVERVIEW

Product Name	Prothrombin (F2), Polyclonal Antibody
Full Product Name	Sheep anti-Human Prothrombin
Product Gene Name	anti-F2 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Host: Sheep; Source: Sheep serum
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	IgG fraction
Concentration	5.0 mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C. Shelf Life: 12 months from delivery
Molecular Weight	160,000
Chromosome Location	Chromosome: 11; NC_000011.9 (46740743..46761056). Location: 11p11
OMIM	176930
3D Structure	ModBase 3D Structure for P00734
Immunogen	Full length native protein (purified) (Human).
Target Information	Recognises Prothrombin
Target Molecular Weight	72000
Buffer	50% Glycerol
Extinction Coefficient	1.36
Product Categories/Family for anti-F2 antibody	Thrombin/Prothrombin; Polyclonal Antibodies to Human Prothrombin
Applications Tested/Suitable for anti-F2 antibody	ELISA (EIA), Western Blot (WB)
Related Product Information for anti-F2 antibody	Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.
Other Notes	Small volumes of anti-F2 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.
Searchable Terms for F2 purchase	MBS135436 is an antibody targeting F2. Also known as Sheep anti-Human Prothrombin. Reactive in Human. Host: Sheep; Source: Sheep serum.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for F2. It may not necessarily be applicable to this product.

NCBI GI #	4503635
NCBI GeneID	2147
NCBI Accession #	NP_000497.1
UniProt Primary Accession #	P00734
UniProt Secondary Accession #	Q4QZ40; Q53H04; Q53H06; Q7Z7P3; Q9UCA1; B2R7F7; B4E1A7
UniProt Related Accession #	P00734
GenBank Nucleotide #	NM_000506.3
NCBI Official Full Name	prothrombin preproprotein
NCBI Official Synonym Full Names	coagulation factor II (thrombin)
NCBI Official Symbol	F2
NCBI Official Synonym Symbols	PT; THPH1; RPRGL2
UniProt Protein Name	Prothrombin
UniProt Synonym Protein Names	Coagulation factor II
Protein Family	I-Kappa-B like protein
UniProt Gene Name	F2
UniProt Entry Name	THRB_HUMAN
NCBI Protein Information	prothrombin; serine protease; prothrombin B-chain; prepro-coagulation factor II
NCBI Summary for F2	Coagulation factor II is proteolytically cleaved to form thrombin in the first step of the coagulation cascade which ultimately results in the stemming of blood loss. F2 also plays a role in maintaining vascular integrity during development and postnatal life. Mutations in F2 leads to various forms of thrombosis and dysprothrombinemia. [provided by RefSeq, Jul 2008]

UniProt Comments for F2	prothrombin: Thrombin, which cleaves bonds after Arg and Lys, converts fibrinogen to fibrin and activates factors V, VII, VIII, XIII, and, in complex with thrombomodulin, protein C. Functions in blood homeostasis, inflammation and wound healing. Defects in F2 are the cause of factor II deficiency (FA2D). It is a very rare blood coagulation disorder characterized by mucocutaneous bleeding symptoms. The severity of the bleeding manifestations correlates with blood factor II levels. Genetic variations in F2 may be a cause of susceptibility to ischemic stroke (ISCHSTR); also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors. Defects in F2 are the cause of thrombophilia due to thrombin defect (THPH1). It is a multifactorial disorder of hemostasis characterized by abnormal platelet aggregation in response to various agents and recurrent thrombi formation. A common genetic variation in the 3-prime untranslated region of the prothrombin gene is associated with elevated plasma prothrombin levels and an increased risk of venous thrombosis. Defects in F2 are associated with susceptibility to pregnancy loss, recurrent, type 2 (RPRGL2). A common complication of pregnancy, resulting in spontaneous abortion before the fetus has reached viability. The term includes all miscarriages from the time of conception until 24 weeks of gestation. Recurrent pregnancy loss is defined as 3 or more consecutive spontaneous abortions. Belongs to the peptidase S1 family. Protein type: Apoptosis; EC 3.4.21.5; Protease; Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 11p11 Cellular Component: extracellular space; Golgi lumen; endoplasmic reticulum lumen; plasma membrane; extracellular region Molecular Function: protein binding; growth factor activity; serine-type endopeptidase activity; calcium ion binding; receptor binding Biological Process: negative regulation of proteolysis; platelet activation; cytosolic calcium ion homeostasis; positive regulation of blood coagulation; multicellular organismal development; positive regulation of collagen biosynthetic process; proteolysis; post-translational protein modification; positive regulation of cell growth; peptidyl-glutamic acid carboxylation; positive regulation of phosphoinositide 3-kinase cascade; regulation of cell shape; fibrinolysis; cellular protein metabolic process; cell surface receptor linked signal transduction; negative regulation of fibrinolysis; regulation of gene expression; positive regulation of cell proliferation; regulation of blood coagulation; negative regulation of astrocyte differentiation; response to wounding; acute-phase response; positive regulation of release of sequestered calcium ion into cytosol; positive regulation of protein amino acid phosphorylation; blood coagulation; leukocyte migration; blood coagulation, intrinsic pathway Disease: Thrombophilia Due To Thrombin Defect; Stroke, Ischemic; Pregnancy Loss, Recurrent, Susceptibility To, 2; Prothrombin Deficiency, Congenital
Research Articles on F2	**1.** Spatial dynamics of thrombin was studied by developing a fluorogenic substrate-based method for time- and space-resolved imaging of thrombin enzymatic activity.
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