Factor II (F2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Factor II (F2), Polyclonal Antibody
Full Product Name	Factor II Antibody
Product Gene Name	anti-F2 antibody
Product Synonym Names	Prothrombin; Coagulation factor II
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Specificity	Recognizes endogenous levels of Factor II protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	70,037 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (46740743..46761056). Location: 11p11
OMIM	176930
3D Structure	ModBase 3D Structure for P00734
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Factor II. The exact sequence is proprietary.
Product Categories/Family for anti-F2 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-F2 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-F2 antibody	WB: 1:500-1:1000 IHC: 1:50-1:100
Related Product Information for anti-F2 antibody	MBS8583374 is an antibody targeting F2. Also known as Factor II Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit. Rabbit polyclonal antibody to Factor II
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.

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: Secreted, signal peptide; EC 3.4.21.5; Protease; Apoptosis; Secreted Chromosomal Location of Human Ortholog: 11p11 Cellular Component: extracellular space; endoplasmic reticulum lumen; Golgi lumen; extracellular region; plasma membrane Molecular Function: protein binding; growth factor activity; serine-type endopeptidase activity; calcium ion binding; receptor binding Biological Process: positive regulation of blood coagulation; multicellular organismal development; positive regulation of collagen biosynthetic process; proteolysis; regulation of cell shape; cell surface receptor linked signal transduction; negative regulation of fibrinolysis; positive regulation of cell proliferation; acute-phase response; response to wounding; negative regulation of proteolysis; platelet activation; cytosolic calcium ion homeostasis; post-translational protein modification; positive regulation of cell growth; peptidyl-glutamic acid carboxylation; positive regulation of phosphoinositide 3-kinase cascade; fibrinolysis; cellular protein metabolic process; regulation of gene expression; regulation of blood coagulation; negative regulation of astrocyte differentiation; positive regulation of release of sequestered calcium ion into cytosol; positive regulation of protein amino acid phosphorylation; blood coagulation; blood coagulation, intrinsic pathway; leukocyte migration Disease: Thrombophilia Due To Thrombin Defect; Stroke, Ischemic; Prothrombin Deficiency, Congenital; Pregnancy Loss, Recurrent, Susceptibility To, 2
Research Articles on F2	**1.** Upon thrombin activation, PAR1-PAR2 dimers co-internalize and recruit beta-arrestins to endosomes.
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