abcam

Product datasheet

Native Mouse Fibrinogen protein (Active) ab92791

2 References

Description

Product name

Native Mouse Fibrinogen protein (Active)

Biological activity

>80% Clottable in a thrombin based assay.

Purity > 95 % SDS-PAGE.

Prepared from fresh Mouse plasma using several chromatographic steps. Plasminogen depleted

by lysine affinity chromatography.

Expression system Native

Accession <u>E9PV24</u>

Q8K0E8 Q8VCM7

Protein length Full length protein

Animal free No Native

Amino Acid Sequence 1

Sequence MLSLRVTCLILSVASTVWTT DTEDKGEFLS

EGGGVRGPRV VERHQSQCKD SDWPFCSDDD WNHKCPSGCR MKGLIDEANQ DFTNRINKLK NSLFDFQRNN KDSNSLTRNI MEYLRGDFAN

ANNFDNTYGQ VSEDLRRRIE ILRRKVIEKA QQIQALQSNV RAQLIDMKRL EVDIDIKIRS CKGSCSRAVN REINLQDYEG

HQKQLQQVIA KELLPTKDRQ YLPALKMSPV
PDLVPGSFKS QLQEAPPEWK ALTEMRQMRM
ELERPGKDGG SRGDSPGDSR GDSRGDFATR
GPGSKAENPT NPGPGGSGYW RPGNSGSGSD
GNRNPGTTGS DGTGDWGTGS PRPGSDSGNF
RPANPNWGVF SEFGDSSSPA TRKEYHTGKA

VTSKGDKELL IGKEKVTSSG TSTTHRSCSK TITKTVTGPD

GRREVVKEVITSDDGSDCGD ATELDISHSF SGSLDELSER HPDLSGFFDN HFGLISPNFK EFGSKTHSDS DILTNIEDPS SHVPEFSSSS KTSTVKKQVT KTYKMADEAG SEAHREGETR NTKRGRARAR PTRDCDDVLQ TQTSGAQNGI FSIKPPGSSK VFSVYCDQET SLGGWLLIQQ RMDGSLNFNR TWQDYKRGFG SLNDKGEGEF WLGNDYLHLL TLRGSVLRVE LEDWAGKEAY

1

AEYHFRVGSE AEGYALQVSS YRGTAGDALV QGSVEEGTEY TSHSNMQFST FDRDADQWEE NCAEVYGGGW WYNSCQAANL NGIYYPGGTY DPRNNSPYEI ENGVVWVPFR GADYSLRAVR MKIRPLVGQ

Amino acids 1 to 789

Additional sequence information Alpha chain Gene ID: 14161

Amino Acid Sequence 2

Sequence MRHLWLLLLL CVFSVQTQAA DDDYDEPTDS

LDARGHRPVD RRKEEPPSLR PAPPPISGGG YRARPAKATA NQKKVERRPP DAGGCLHADT

DMGVLCPTGC TLQQTLLNQE RPIKSSIAEL NNNIQSVSDT

SSVTFQYLTL LKDMWKKKQA QVKENENVIN

EYSSILEDQR LYIDETVNDN IPLNLRVLRS ILEDLRSKIQ KLESDISAQM EYCRTPCTVS CNIPVVSGKE CEEIIRKGGE

TSEMYLIQPD TSIKPYRVYC DMKTENGGWT
VIQNRQDGSV DFGRKWDPYK KGFGNIATNE
DAKKYCGLPG EYWLGNDKIS QLTRMGPTEL
LIEMEDWKGD KVKAHYGGFT VQNEASKYQV
SVNKYKGTAG NALMDGASQL VGENRTMTIH
NGMFFSTYDR DNDGWVTTDP RKQCSKEDGG
GWWYNRCHAA NPNGRYYWGG LYSWDMSKHG
TDDGVVWMNW KGSWYSMRRM SMKIRPFFPQ Q

Amino acids 1 to 481

Additional sequence information Gene ID: 110135 Beta chain.

Amino Acid Sequence 3

Sequence MSWSLQPPSF LLCCLLLLFS PTGLAYVATR

DNCCILDERF GSFCPTTCGI ADFLSSYQTD

VDNDLRTLED ILFRAENRTT EAKELIKAIQ VYYNPDQPPK PGMIDSATQK SKKMVEENK YEALLLTHET SIRYLQEIYN

SNNQKITNLK QKVAQLEAQC QEPCKDSVQI

HDTTGKDCQE IANKGAKESG LYFIRPLKAK QQFLVYCEID

GSGNGWTVLQ KRIDGSLDFK KNWIQYKEGF

GHLSPTGTTE FWLGNEKIHL ISMQSTIPYA LRIQLKDWNG

RTSTADYAMF RVGPESDKYR LTYAYFIGGD AGDAFDGYDF GDDPSDKFFT SHNGMQFSTW DNDNDKFEGN CAEQDGSGWW MNKCHAGHLN GVYHQGGTYS KSSTTNGFDD GIWATWKSR

WYSMKETTMK IIPFNRLSIG EGQQHHMGGS KQAGDV

Amino acids 1 to 436

Additional sequence information Gene ID: 99571 Gamma chain.

Description Native Fibrinogen protein (Active)

Specifications

Our Abpromise guarantee covers the use of ab92791 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Functional Studies

Form

Additional notes Extinction coefficient: 1.51

Host species: Mouse

MW: 340.00 kDa

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.40

Constituent: 0.59% Sodium citrate

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function Fibrinogen has a double function: yielding monomers that polymerize into fibrin and acting as a

cofactor in platelet aggregation.

Tissue specificity

Involvement in disease

Plasma.

Defects in FGA are a cause of congenital afibrinogenemia (CAFBN) [MIM:202400]. This is a rare autosomal recessive disorder characterized by bleeding that varies from mild to severe and by complete absence or extremely low levels of plasma and platelet fibrinogen. Note=The majority of cases of afibrinogenemia are due to truncating mutations. Variations in position Arg-35 (the site

of cleavage of fibrinopeptide a by thrombin) leads to alpha-dysfibrinogenemias.

Defects in FGA are a cause of amyloidosis type 8 (AMYL8) [MIM:105200]; also known as systemic non-neuropathic amyloidosis or Ostertag-type amyloidosis. AMYL8 is a hereditary generalized amyloidosis due to deposition of apolipoprotein A1, fibrinogen and lysozyme

amyloids. Viscera are particularly affected. There is no involvement of the nervous system. Clinical features include renal amyloidosis resulting in nephrotic syndrome, arterial hypertension,

hepatosplenomegaly, cholestasis, petechial skin rash.

Sequence similarities

Contains 1 fibrinogen C-terminal domain.

Domain

A long coiled coil structure formed by 3 polypeptide chains connects the central nodule to the Cterminal domains (distal nodules). The long C-terminal ends of the alpha chains fold back, contributing a fourth strand to the coiled coil structure.

Post-translational modifications

The alpha chain is not glycosylated.

Forms F13A-mediated cross-links between a glutamine and the epsilon-amino group of a lysine

residue, forming fibronectin-fibrinogen heteropolymers.

About one-third of the alpha chains in the molecules in blood were found to be phosphorylated. Conversion of fibrinogen to fibrin is triggered by thrombin, which cleaves fibrinopeptides A and B from alpha and beta chains, and thus exposes the N-terminal polymerization sites responsible for the formation of the soft clot. The soft clot is converted into the hard clot by factor XIIIA which catalyzes the epsilon-(gamma-glutamyl)lysine cross-linking between gamma chains (stronger)

and between alpha chains (weaker) of different monomers. Phosphorylation sites are present in the extracellular medium.

Cellular localization

Secreted.

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