

Product datasheet

Recombinant Human CD36 protein (His tag) ab167735

1 Image

Description

Product name	Recombinant Human CD36 protein (His tag)	
Purity	> 90 % SDS-PAGE. ab167735 was lyophilized from 0.22 µm filtered solution. Purified by Immobilized metal affinity chromatography.	
Endotoxin level	< 1.000 Eu/µg	
Expression system	HEK 293 cells	
Accession	<u>P16671</u>	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	GDLLIQKTIKKQVVLEEGTIAFKNWVKTGTEVYRQFWIFDV QNPQEVMMN SSNIQVKQRGPYTYRVRFLAKENVTQDAEDNTVSFLQPNG AIFEPSLSVG TEADNFTVLNLAVAAAASHIQNQFVQMILNSLINKSKSSMF QVRTLRELL WGYRDPFLSLVPYPVTTTVGLFYNNNTADGVYKVFNGKD NISKVAIDT YKGRNLSYWESHCDMINGTDAASFPPFVEKSQVLQFFS SDICRSIYAVF ESDVNLKGIPVYRFVLPKAFASPVENPDNYCFCTEKIISK NCTSYGVLD ISKCKEGRPVYISLPFLYASPDVSEPIDGLNPNEEEHRTY LDIEPITGF TLQFAKRLQVNLLVKPSEKIQVLKLNKRNYPILWLNETGTI GDEKANMFRSQVTGKIN	
Predicted molecular weight	48 kDa including tags	
Amino acids	30 to 439	
Tags	His tag C-Terminus	

Specifications

Our **Abpromise guarantee** covers the use of **ab167735** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Lyophilized
Additional notes	Measured by its binding ability in a functional ELISA. Immobilized ab167735 at 2 µg/mL (100 µL/well) can bind rhTSP2/His with a linear range of 0.01-1 µg/mL.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.40 Constituents: 94% PBS, 5% Trehalose
Reconstitution	Reconstitute with sterile deionized water to a concentration of 200 µg/ml.

General Info

Function	Multifunctional glycoprotein that acts as receptor for a broad range of ligands. Ligands can be of proteinaceous nature like thrombospondin, fibronectin, collagen or amyloid-beta as well as of lipidic nature such as oxidized low-density lipoprotein (oxLDL), anionic phospholipids, long-chain fatty acids and bacterial diacylated lipopeptides. They are generally multivalent and can therefore engage multiple receptors simultaneously, the resulting formation of CD36 clusters initiates signal transduction and internalization of receptor-ligand complexes. The dependency on coreceptor signaling is strongly ligand specific. Cellular responses to these ligands are involved in angiogenesis, inflammatory response, fatty acid metabolism, taste and dietary fat processing in the intestine (Probable). Binds long-chain fatty acids and facilitates their transport into cells, thus participating in muscle lipid utilization, adipose energy storage, and gut fat absorption (By similarity) (PubMed:18353783, PubMed:21610069). In the small intestine, plays a role in proximal absorption of dietary fatty acid and cholesterol for optimal chylomicron formation, possibly through the activation of MAPK1/3 (ERK1/2) signaling pathway (By similarity) (PubMed:18753675). Involved in oral fat perception and preferences (PubMed:22240721, PubMed:25822988). Detection into the tongue of long-chain fatty acids leads to a rapid and sustained rise in flux and protein content of pancreaticobiliary secretions (By similarity). In taste receptor cells, mediates the induction of an increase in intracellular calcium levels by long-chain fatty acids, leading to the activation of the gustatory neurons in the nucleus of the solitary tract (By similarity). Important factor in both ventromedial hypothalamus neuronal sensing of long-chain fatty acid and the regulation of energy and glucose homeostasis (By similarity). Receptor for thrombospondins, THBS1 and THBS2, mediating their antiangiogenic effects (By similarity). As a coreceptor for TLR4:TLR6 heterodimer, promotes inflammation in monocytes/macrophages. Upon ligand binding, such as oxLDL or amyloid-beta 42, interacts with the heterodimer TLR4:TLR6, the complex is internalized and triggers inflammatory response, leading to NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion, through the priming and activation of the NLRP3 inflammasome (By similarity) (PubMed:20037584). Selective and nonredundant sensor of microbial diacylated lipopeptide that signal via TLR2:TLR6 heterodimer, this cluster triggers signaling from the cell surface, leading to the NF-kappa-B-dependent
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production of TNF, via MYD88 signaling pathway and subsequently is targeted to the Golgi in a lipid-raft dependent pathway (By similarity) (PubMed:16880211).

(Microbial infection) Directly mediates cytoadherence of Plasmodium falciparum parasitized erythrocytes and the internalization of particles independently of TLR signaling.

Involvement in disease

Platelet glycoprotein IV deficiency
Coronary heart disease 7

Sequence similarities

Belongs to the CD36 family.

Post-translational modifications

N-glycosylated and O-glycosylated with a ratio of 2:1.

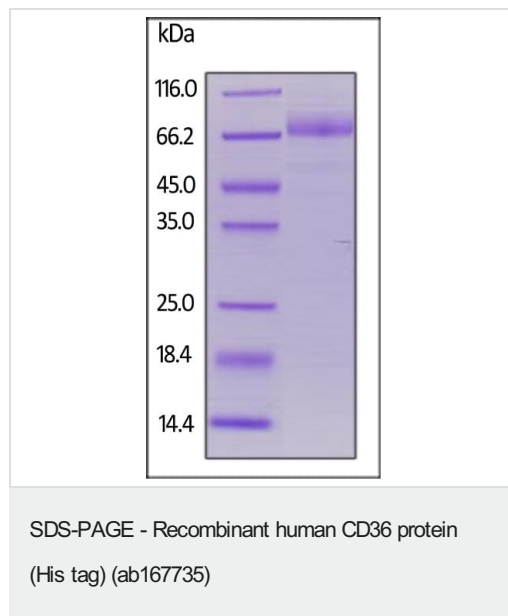
Ubiquitinated at Lys-469 and Lys-472. Ubiquitination is induced by fatty acids such as oleic acid and leads to degradation by the proteasome (PubMed:21610069, PubMed:18353783).

Ubiquitination and degradation are inhibited by insulin which blocks the effect of fatty acids (PubMed:18353783).

Cellular localization

Cell membrane. Membrane raft. Golgi apparatus. Apical cell membrane. Upon ligand-binding, internalized through dynamin-dependent endocytosis.

Images



SDS-PAGE analysis of ab167735 under reducing conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

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