

CD36 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P72895
Synonyms:	Glycoprotein IIIb; GPIIIB; PAS IV; PAS-4; Platelet glycoprotein 4; GPIV; CD36
Species:	Mouse
Source:	HEK293
Accession:	Q08857 (G30-K439)
Gene ID:	12492
Molecular Weight:	75-90 kDa

PROPERTIES

AA Sequence	<pre> G D M L I E K T I K R E V V L E E G T T A F K N W V K T G T T V Y R Q F W I F D V Q N P D D V A K N S S K I K V K Q R G P Y T Y R V R Y L A K E N I T Q D P E D H T V S F V Q P N G A I F E P S L S V G T E D D N F T V L N L A V A A A P H I Y Q N S F V Q V V L N S L I K K S K S S M F Q T R S L K E L L W G Y K D P F L S L V P Y P I S T T V G V F Y P Y N D T V D G V Y K V F N G K D N I S K V A I I E S Y K G K R N L S Y W P S Y C D M I N G T D A A S F P P F V E K S R T L R F F S S D I C R S I Y A V F G S E I D L K G I P V Y R F V L P A N A F A S P L Q N P D N H C F C T E K V I S N N C T S Y G V L D I G K C K E G K P V Y I S L P H F L H A S P D V S E P I E G L H P N E D E H R T Y L D V E P I T G F T L Q F A K R L Q V N I L V K P A R K I E A L K N L K R P Y I V P I L W L N E T G T I G D E K A E M F K T Q V T G K I K </pre>
Biological Activity	Immobilized Mouse CD36, at 1 µg/mL (100 µL/well) can bind CD36 Antibody. The ED50 for this effect is 39.38 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CD36, a multifunctional glycoprotein, serves as a receptor for a diverse range of ligands, encompassing proteinaceous entities like thrombospondin, fibronectin, collagen, amyloid-beta, and lipidic molecules such as oxidized low-density lipoprotein (oxLDL), anionic phospholipids, long-chain fatty acids, and bacterial diacylated lipopeptides. The engagement of these ligands initiates signal transduction and internalization of receptor-ligand complexes, with responses varying in a ligand-specific manner. CD36's involvement spans angiogenesis, inflammatory responses, fatty acid metabolism, taste perception, and dietary fat processing in the intestine. The glycoprotein binds long-chain fatty acids, facilitating their cellular transport and participating in processes such as muscle lipid utilization, adipose energy storage, and gut fat absorption. Mechanistically, fatty acid binding activates downstream kinase LYN, resulting in CD36 depalmitoylation and caveolar endocytosis. CD36 also plays a pivotal role in oral fat perception, influencing preferences and leading to changes in pancreaticobiliary secretions upon the detection of long-chain fatty acids in the tongue. Furthermore, it contributes to the regulation of energy and glucose homeostasis in the ventromedial hypothalamus and acts as a receptor for thrombospondins, mediating antiangiogenic effects. Acting as a coreceptor for TLR4:TLR6 heterodimer, CD36 promotes inflammation in monocytes/macrophages, responding to ligands like oxLDL or amyloid-beta. Additionally, CD36 acts as a selective sensor for microbial diacylated lipopeptides, triggering NF-kappa-B-dependent cytokine production and participating in the response to infections, including *M. tuberculosis* and *Plasmodium falciparum*. It also mediates the uptake of certain bacteria, showcasing its role as a versatile and indispensable component in various physiological processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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