

## Product datasheet

# Anti-CD36 antibody ab64014

★★★★☆ [4 Abreviews](#) [13 References](#) [3 Images](#)

### Overview

---

<b>Product name</b>	Anti-CD36 antibody
<b>Description</b>	Rabbit polyclonal to CD36
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen used for this product shares 50% homology with CD36/SCARB1 and CD36/SCARB2. Cross-reactivity with this protein has not been confirmed experimentally
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

---

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS  Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab64014 in the following tested applications.

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

Application	Abreviews	Notes
WB	★★★★☆ (3)	Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 85 kDa (predicted molecular weight: 53 kDa). Abcam recommends using BSA as the blocking agent.

## Target

### 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 pancreatobiliary 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 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.

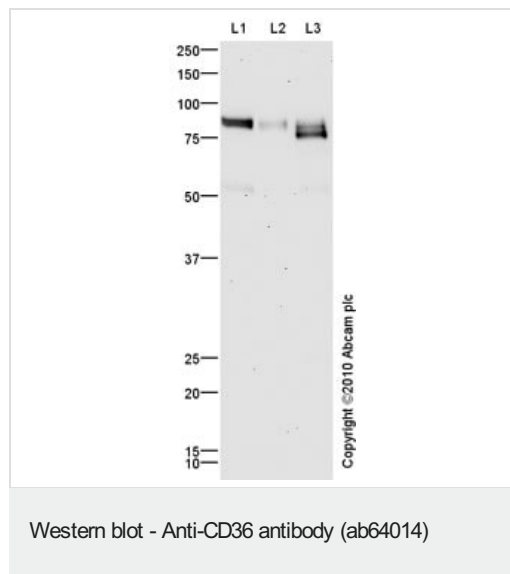
Ubiquitinated at Lys-469 and Lys-472. Ubiquitination is induced by fatty acids such as oleic acid and leads to degradation by the proteasome (PubMed:21610069, PubMed:18353783).

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



**All lanes :** Anti-CD36 antibody (ab64014) at 1 µg/ml

**Lane 1 :** Human Platelet (Human adult normal cell line) Whole Cell Lysate

**Lane 2 :** Human spleen tissue lysate - total protein ([ab29699](#))

**Lane 3 :** Human adipose normal tissue lysate - total protein ([ab28980](#))

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 53 kDa

**Observed band size:** 85 kDa

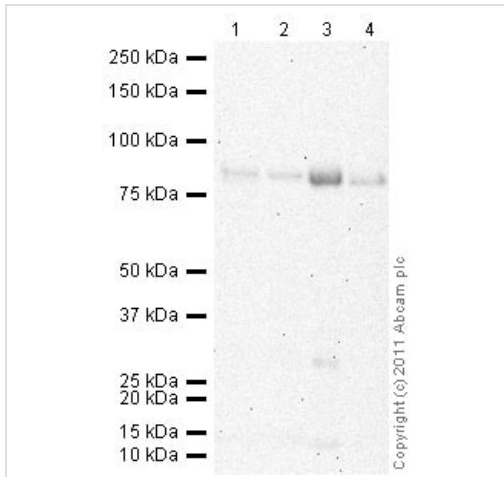
**Additional bands at:** 75 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 20 minutes

CD36 contains a number of potential glycosylation sites

(SwissProt) which may explain the bands observed at 85 kDa.

Abcam welcomes customer feedback.



Western blot - Anti-CD36 antibody (ab64014)

**All lanes :** Anti-CD36 antibody (ab64014) at 2 µg/ml (Blocked in 3% milk)

**Lane 1 :** Heart (Mouse) Tissue Lysate

**Lane 2 :** Heart (Rat) Tissue Lysate

**Lane 3 :** Adult Mouse Brown Adipose Tissue Tissue Lysate

**Lane 4 :** Adult Rat Brown Adipose Tissue Tissue Lysate

Lysates/proteins at 20 µg per lane.

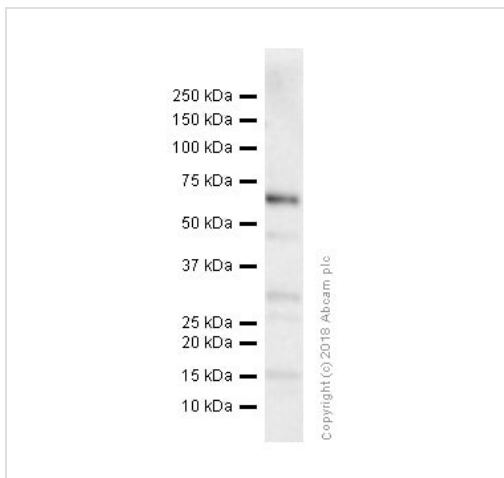
#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

**Predicted band size:** 53 kDa

**Observed band size:** 85 kDa

**Exposure time:** 20 minutes



Western blot - Anti-CD36 antibody (ab64014)

Anti-CD36 antibody (ab64014) + HEK293 (human embryonic kidney epithelial cell) transfected with His-tagged human CD36 (30aa-439aa) expression vector, whole cell lysate at 20 µg with 5% NFDN/TBST

#### Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

**Predicted band size:** 53 kDa

**Observed band size:** 70 kDa

**Exposure time:** 3 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### Our Promise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery

- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors