

Product datasheet

Anti-CD40 Ligand antibody [EPR26530-17] ab303610

Recombinant RabMAb

7 Images

Overview

Product name	Anti-CD40 Ligand antibody [EPR26530-17]
Description	Rabbit monoclonal [EPR26530-17] to CD40L
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Human Does not react with: Mouse, Rat
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: PMA/BFA/monensin treated Jurkat whole cell lysate. D1.1 whole cell lysate. Human lymphoma, spleen and tonsil tissue lysate. IHC-P: Human tonsil tissue. PMA/BFA/monensin treated Jurkat cell pellet. IP: D1.1 whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR26530-17
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab303610 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		1/1000. Predicted molecular weight: 29 kDa.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

Function Mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL-4. Involved in immunoglobulin class switching.
Release of soluble CD40L from platelets is partially regulated by GP IIb/IIIa, actin polymerization, and an matrix metalloproteinases (MMP) inhibitor-sensitive pathway.

Tissue specificity Specifically expressed on activated CD4+ T-lymphocytes.

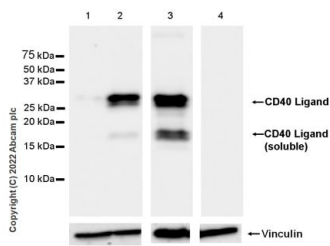
Involvement in disease Defects in CD40LG are the cause of X-linked immunodeficiency with hyper-IgM type 1 (HIGM1) [MIM:308230]; also known as X-linked hyper IgM syndrome (XHIM). HIGM1 is an immunoglobulin isotype switch defect characterized by elevated concentrations of serum IgM and decreased amounts of all other isotypes. Affected males present at an early age (usually within the first year of life) recurrent bacterial and opportunistic infections, including Pneumocystis carinii pneumonia and intractable diarrhea due to cryptosporidium infection. Despite substitution treatment with intravenous immunoglobulin, the overall prognosis is rather poor, with a death rate of about 10% before adolescence.

Sequence similarities Belongs to the tumor necrosis factor family.

Post-translational modifications The soluble form derives from the membrane form by proteolytic processing.
N-linked glycan is a mixture of high mannose and complex type. Glycan structure does not influence binding affinity to CD40.
Not O-glycosylated.

Cellular localization Secreted and Cell membrane.

Images



Western blot - Anti-CD40 Ligand antibody
[EPR26530-17] (ab303610)

All lanes : Anti-CD40 Ligand antibody [EPR26530-17] (ab303610) at 1/1000 dilution

Lane 1 : Untreated Jurkat (human T cell leukemia T lymphocyte from peripheral blood), whole cell lysate

Lane 2 : Jurkat treated with /ml 48h PMA for 48h, then treated with 300ng/ml BFA and 3uM monensin for 24h, whole cell lysate

Lane 3 : D1.1 (human T lymphoblast), whole cell lysate

Lane 4 : Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lysates/proteins at 50 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/1000 dilution

Predicted band size: 29 kDa

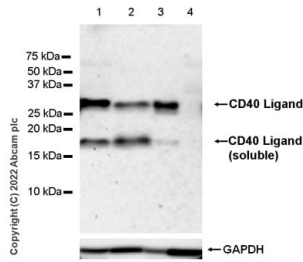
Observed band size: 17,25-30 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Negative control: Raji (PMID:12805559)

The antibody recognizes both membrane bound (25-30KDa) and soluble (17KDa) form.

Exposure time: 3.25 seconds



Western blot - Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

All lanes : Anti-CD40 Ligand antibody [EPR26530-17] (ab303610) at 1/1000 dilution

Lane 1 : Human lymphoma tissue lysate

Lane 2 : Human spleen tissue lysate

Lane 3 : Human tonsil tissue lysate

Lane 4 : Human skeletal muscle tissue lysate

Lysates/proteins at 50 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/1000 dilution

Predicted band size: 29 kDa

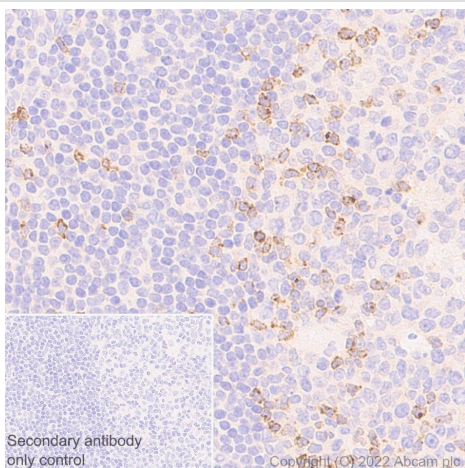
Observed band size: 17,25-30 kDa

Blocking and diluting buffer and concentration: 5% NFDN/TBST

Negative control: human skeletal muscle (PMID:1281209)

The antibody recognizes both membrane bound (25-30KDa) and soluble (17KDa) form.

Exposure time: 180 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

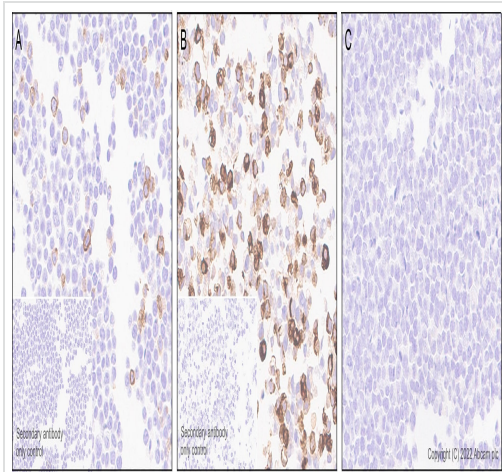
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD40 Ligand with ab303610 at 1/500 dilution (1.062 µg/ml) followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human tonsil (PMID: 7699321).

The section was incubated with ab303610 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



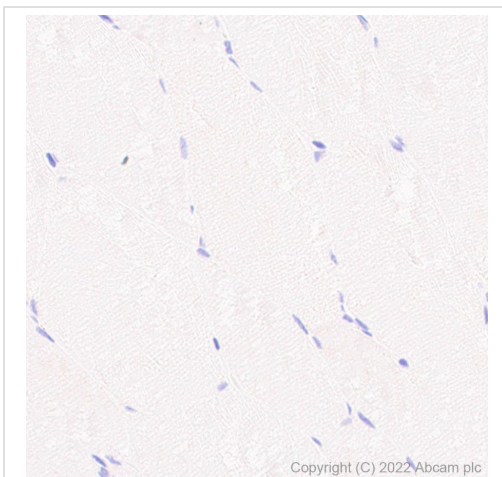
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

Immunohistochemical analysis of paraffin-embedded cell pellets labeling CD40 Ligand with ab303610 at 1/500 dilution (1.062 µg/ml) followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on wild-type Jurkat (human T cell leukemia T lymphocyte from peripheral blood) cell pellet (A) and Jurkat treated with 50ng/ml 48h PMA for 48h, then treated with 300ng/ml BFA and 3µM monensin for 24h cell pellet (B). No staining on wild-type Raji (human Burkitt's lymphoma B lymphocyte) cell pellet (C).

The section was incubated with ab303610 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

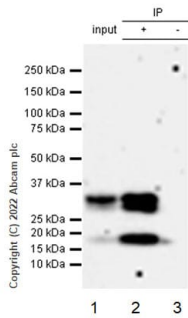
Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling CD40 Ligand with ab303610 at 1/500 dilution (1.062 µg/ml) followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining on human skeletal muscle (PMID: 1281209).

The section was incubated with ab303610 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunoprecipitation - Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

CD40 Ligand was immunoprecipitated from 0.35 mg D1.1 (human T lymphoblast) whole cell lysate 10 µg with ab303610 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab303610 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)([ab131366](#)) was used at 1/5000 dilution.

Lane 1: D1.1 whole cell lysate 10 µg

Lane 2: ab303610 IP in D1.1 whole cell lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab303610 in D1.1 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST

Exposure time: 180 seconds

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-CD40 Ligand antibody [EPR26530-17] (ab303610)

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

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