abcam

Product datasheet

Anti-CAT1 antibody ab37588

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Overview

Product name	Anti-CAT1 antibody
Description	Rabbit polyclonal to CAT1
Host species	Rabbit
Tested applications	**Suitable for:** IHC-FoFr, WB
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Orangutan
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 600 to the C-terminus of Human CAT1 (gene: SLC7A1). Read Abcam's proprietary immunogen policy(Peptide available as ab37587.)
Positive control	This antibody gave a positive signal in the following human whole cell lysates: Jurkat, MCF-7 and HepG2.

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab37588** in the following tested applications.

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

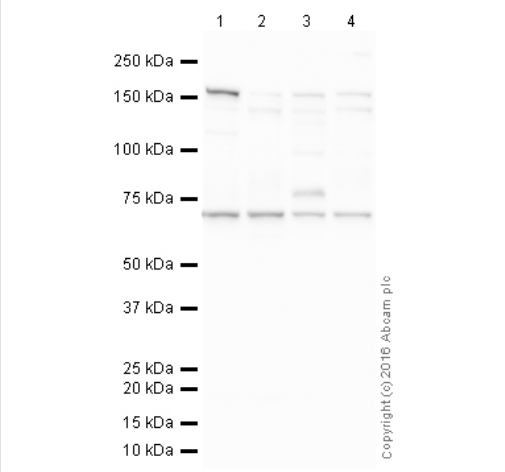
Application	Abreviews	Notes
IHC-FoFr	★★★★★	1/1000.

Application	Abreviews	Notes
WB		1/250. Detects a band of approximately 68 kDa (predicted molecular weight: 68 kDa). Abcam recommends using milk as the blocking agent.

Target

Function	High-affinity, low capacity permease involved in the transport of the cationic amino acids (arginine, lysine and ornithine) in non-hepatic tissues. May also function as an ecotropic retroviral leukemia receptor.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the amino acid-polyamine-organocation (APC) superfamily. Cationic amino acid transporter (CAT) (TC 2.A.3.3) family.
Cellular localization	Membrane.

Images



Western blot - Anti-CAT1 antibody (ab37588)

All lanes : Anti-CAT1 antibody (ab37588) at 1 µg/ml

Lane 1 : Jurkat (Human) Whole Cell Lysate
Lane 2 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 3 : PC3 (Human prostate carcinoma cell line) Whole Cell Lysate
Lane 4 : LNCaP (Human prostate carcinoma) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 68 kDa
Observed band size: 68 kDa
Additional bands at: 160 kDa, 76 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 1 minute

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk before being incubated with ab37588 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.

Western blot - Anti-CAT1 antibody (ab37588)

All lanes : Anti-CAT1 antibody (ab37588) at 1 µg/ml

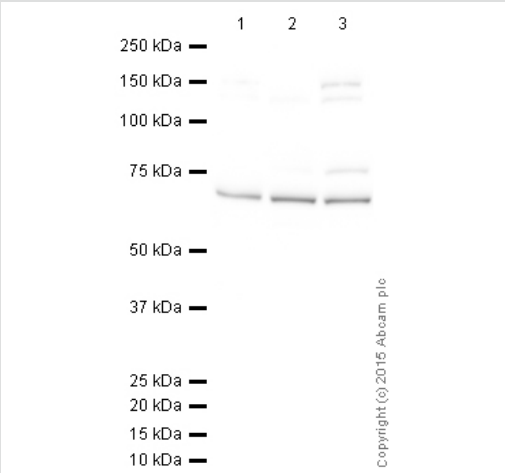
Lane 1 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 2 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 3 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

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

Performed under reducing conditions.

Predicted band size: 68 kDa
Observed band size: 68 kDa



Western blot - Anti-CAT1 antibody (ab37588)

All lanes : Anti-CAT1 antibody (ab37588) at 1 µg/ml (3% Milk)

Lane 1 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 2 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 3 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

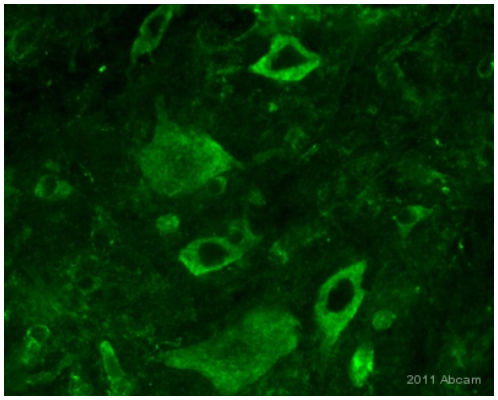
Predicted band size: 68 kDa
Observed band size: 68 kDa
Additional bands at: 135 kDa, 155 kDa, 76 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 2 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk before being incubated with ab37588 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

Abcam recommends using milk as the blocking agent. Abcam

welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-CAT1 antibody (ab37588)

This image is courtesy of an abreview submitted by Sophie Pezet, ESPCI, France

IHC-FoFr image of CAT1 staining on Mouse Spinal Cord sections using ab37588 (1:1000). The sections used came from animals perfused fixed with Paraformaldehyde 4% with 15% of a solution of saturated picric acid, in phosphate buffer 0.1M. Following postfixation in the same fixative overnight, the spinal cord were cryoprotected in sucrose 30% overnight. Spinal cords were then cut using a cryostat and the immunostainings were performed using the 'free floating' technique.

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