abcam

Product datasheet

Human CASP1 (Caspase-1) knockout THP-1 cell lysate ab277988

2 Images

Overview

Product name	Human CASP1 (Caspase-1) knockout THP-1 cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	THP-1
Organism	Human
Passage number	<20
Knockout validation	Western Blot (WB)
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT. **Usage of SDS sample buffer is not recommended with these lyophilized lysates.*
Notes	**Lysate preparation:** Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found **here**. Please refer to our lysis protocol for further details on how our lysates are prepared. **User storage instructions:** Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage. Access thousands of knockout cell lysates, generated from commonly used cancer cell lines. **See here for more information on knockout cell lysates.** Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses. This product is subject to limited use licenses from The Broad Institute and ERS Genomics Limited, and is developed with patented technology. For full details of the limited use licenses and relevant patents please refer to our **limited use license** and **patent pages**.
Tested applications	**Suitable for:** WB

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
ab277989 - Human CASP1 (Caspase-1) knockout THP-1 cell lysate	1 x 100µg
ab282895 - Human wild-type THP-1 cell lysate	1 x 100µg

Cell type acute monocytic leukemia

Disease Acute Monocytic Leukemia

Gender Male

Target

Function Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis.

Tissue specificity Expressed in larger amounts in spleen and lung. Detected in liver, heart, small intestine, colon, thymus, prostate, skeletal muscle, peripheral blood leukocytes, kidney and testis. No expression in the brain.

Sequence similarities Belongs to the peptidase C14A family.
Contains 1 CARD domain.

Post-translational modifications The two subunits are derived from the precursor sequence by an autocatalytic mechanism.

Cellular localization Cytoplasm.

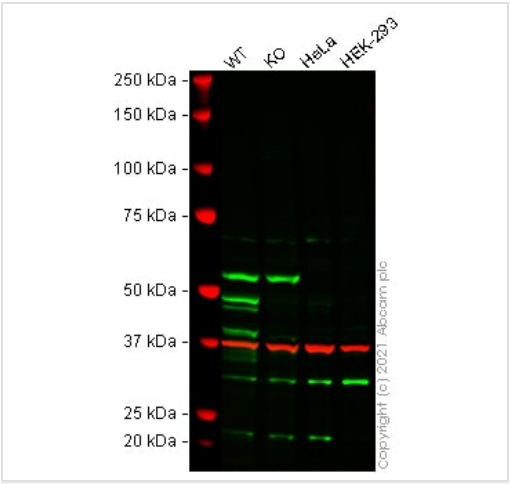
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab277988 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		Use at an assay dependent concentration.

Images



human casp1 caspase 1 knockout thp 1 cell line western blot wildtype thp1 casp1 knockout thp1 hela hek293

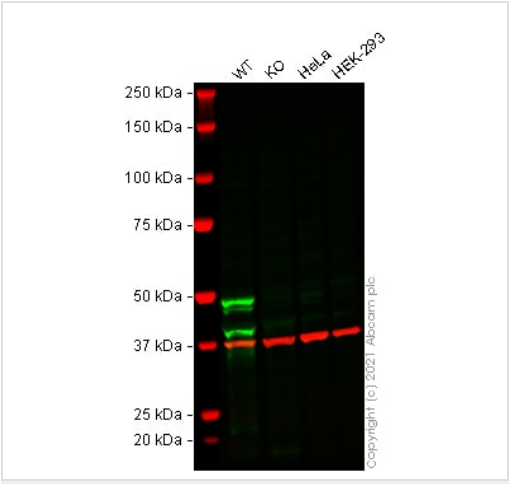
Lane 1: Wild-type THP-1 cell lysate 40 µg

Lane 2: THP-1 cell lysate 40 µg

Lane 3: HeLa cell lysate 20 µg

Lane 4: HEK-293 cell lysate 20 µg

False colour image of Western blot: Anti-CASP1 antibody staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, the antibody was shown to bind specifically to CASP1. A band was observed at 35-40, 48 kDa in wild-type THP-1 cell lysates with no signal observed at this size in CASP1 knockout cell line **ab276116** (knockout cell lysate ab277988). To generate this image, wild-type and CASP1 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Human CASP1 (Caspase-1) knockout THP-1 cell lysate (ab277988)

Lane 1: Wild-type THP-1 cell lysate 40 µg
Lane 2: CASP1 knockout THP-1 cell lysate 40 µg
Lane 3: HeLa cell lysate 20 µg
Lane 4: HEK-293 cell lysate 20 µg
False colour image of Western blot: Anti-Caspase-1 antibody [EPR19672] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab207802** was shown to bind specifically to Caspase-1. A band was observed at 22, 35-40, 48 kDa in wild-type THP-1 cell lysates with no signal observed at this size in CASP1 knockout cell line **ab276116** (knockout cell lysate ab277988). To generate this image, wild-type and CASP1 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent

western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.

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