abcam

Product datasheet

Human CASP7 (Caspase-7) knockout HeLa cell lysate ab257380

4 Images

Overview

Product name	Human CASP7 (Caspase-7) knockout HeLa cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 13 bp deletion in exon2 and 1 bp deletion in exon2 and 20 bp deletion in exon2.
Passage number	<20
Knockout validation	Sanger Sequencing, 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
ab262075 - Human CASP7 knockout HeLa cell lysate	1 x 100µg
ab255929 - Human wild-type HeLa cell lysate	1 x 100µg

Cell type epithelial

Disease Adenocarcinoma

Gender Female

STR Analysis Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10

Target

Function Involved in the activation cascade of caspases responsible for apoptosis execution. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-
-Gly-217' bond. Overexpression promotes programmed cell death.

Tissue specificity Highly expressed in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. No expression in the brain.

Sequence similarities Belongs to the peptidase C14A family.

Post-translational modifications Cleavages by granzyme B or caspase-10 generate the two active subunits. Propeptide domains can also be cleaved efficiently by caspase-3. Active heterodimers between the small subunit of caspase-7 and the large subunit of caspase-3, and vice versa, also occur.

Cellular localization Cytoplasm.

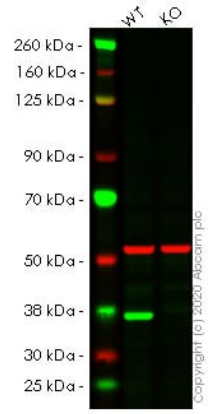
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab257380 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. Predicted molecular weight: 34 kDa.

Images



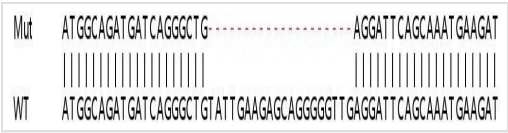
Western blot - Human CASP7 (Caspase-7) knockout HeLa cell lysate (ab257380)

Lane 1: Wild-type HeLa cell lysate (20µg)

Lane 2: CASP7 knockout HeLa cell lysate (20µg)

Lanes 1- 2: Merged signal (red and green). Green - **ab32522** observed at 38 kDa. Red - loading control **ab7291** observed at 50 kDa.

ab32522 Recombinant Anti-HMGB1 antibody [EPR3506] was shown to specifically react with pro Caspase-7 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab265777** (knockout cell lysate ab257380) was used. Wild-type and pro Caspase-7 knockout samples were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab32522** and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Sanger Sequencing - Human CASP7 knockout HeLa cell lysate (ab257380)

Allele-1: 20 bp deletion in exon2

Sanger Sequencing - Human CASP7 knockout HeLa cell lysate (ab257380)

Allele-2: 13 bp deletion in exon2

Sanger Sequencing - Human CASP7 knockout HeLa cell lysate (ab257380)

Allele-3: 1 bp deletion in exon2

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