

Product datasheet

Human CAMK2D (CaMKII delta) knockout HEK-293T cell lysate ab257376

3 Images

Overview

Product name	Human CAMK2D (CaMKII delta) knockout HEK-293T cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HEK293T
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 14 bp deletion in exon5 and 1 bp insertion in exon5.
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. <i>*Usage of SDS sample buffer is not recommended with these lyophilized lysates.</i>

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.](#)

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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.

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Tested applications

Suitable for: WB

Properties

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

Components	1 kit
ab262074 - Human CAMK2D knockout HEK293T cell lysate	1 x 100µg
ab255553 - Human wild-type HEK293T cell lysate	1 x 100µg

Cell type epithelial

STR Analysis Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01: 7, 9.3 TPOX: 11 CSF1PO: 11, 12

Target

Function CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release.

Tissue specificity Expressed in cardiac muscle and skeletal muscle. Isoform Delta 3, isoform Delta 2, isoform Delta 8 and isoform Delta 9 are expressed in cardiac muscle. Isoform Delta 11 is expressed in skeletal muscle.

Sequence similarities Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.

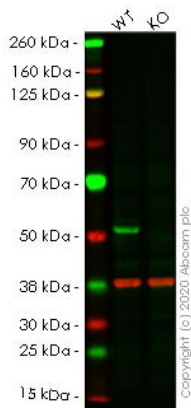
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab257376 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: 56 kDa.

Images



Western blot - Human CAMK2D (CaMKII delta)
knockout HEK293T cell lysate (ab257376)

Lane 1: Wild-type HEK-293T cell lysate (20µg)

Lane 2: CAMK2D knockout HEK-293T cell lysate (20µg)

Lanes 1- 2: Merged signal (red and green). Green - **ab181052** observed at 50 kDa. Red - loading control **ab8245** observed at 37 kDa.

ab181052 Anti-CaMKII delta antibody [EPR13095] was shown to specifically react with CaM-kinase II in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line **ab267322** (knockout cell lysate ab257376) was used. Wild-type and CaM-kinase II 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. **ab181052** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) 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.

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Mut  TGATTATGTTTTTATCTTCCCAGAGTTAC-----TTGAAGACATAGTGGC
      |||
WT   TGATTATGTTTTTATCTTCCCAGAGTTACTGGAGGTGAACGTGTTGAAGACATAGTGGC

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Sanger Sequencing - Human CAMK2D knockout
HEK293T cell lysate (ab257376)

Allele-1: 14 bp deletion in exon5

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Mut  TGATTATGTTTTTATCTTCCCAGAGTTACCTGGAGGTGAACGTGTTGAAGACATAGTGG
      |||
WT   TGATTATGTTTTTATCTTCCCAGAGTTAC  TGGAGGTGAACGTGTTGAAGACATAGTGG

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Sanger Sequencing - Human CAMK2D knockout
HEK293T cell lysate (ab257376)

Allele-2: 1 bp insertion in exon5

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