abcam

Product datasheet

Anti-SHARP2/DEC1 antibody ab70723

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Overview

Product name Anti-SHARP2/DEC1 antibody

Description Rabbit polyclonal to SHARP2/DEC1

Host species Rabbit

Tested applications Suitable for: IHC-P, WB, IP

Species reactivity Reacts with: Human

Predicted to work with: Chimpanzee, Rhesus monkey, Gorilla, Orangutan

Immunogen Synthetic peptide corresponding to Human SHARP2/DEC1 (C terminal).

Database link: NP_003661.1

Positive control Whole cell lysates from HeLa and 293T cells.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or

contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7

Preservative: 0.09% Sodium azide

Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS

Purity Immunogen affinity purified

Purification notes ab70723 was affinity purified using an epitope specific to SHARP2/DEC1 immobilized on solid

support.

Clonality Polyclonal

Isotype IgG

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Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab70723 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-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/5000 - 1/15000. Detects a band of approximately 50 kDa (predicted molecular weight: 45 kDa).
IP		Use at 1-4 μg/mg of lysate.

Target

Function

Transcriptional repressor involved in the regulation of the circadian rhythm by negatively regulating the activity of the clock genes and clock-controlled genes. Acts as the negative limb of a novel autoregulatory feedback loop (DEC loop) which differs from the one formed by the PER and CRY transcriptional repressors (PER/CRY loop). Both these loops are interlocked as it represses the expression of PER1/2 and in turn is repressed by PER1/2 and CRY1/2. Represses the activity of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1

ARNTL2/BMAL2 heterodimer by competing for the binding to E-box elements (5'-CACGTG-3') found within the promoters of its target genes. Negatively regulates its own expression and the expression of DBP and BHLHE41/DEC2. Acts as a corepressor of RXR and the RXR-LXR heterodimers and represses the ligand-induced RXRA and NR1H3/LXRA transactivation activity. May be involved in the regulation of chondrocyte differentiation via the cAMP pathway.

Tissue specificity

Expressed in cartilage, spleen, intestine, lung, and to a lesser extent in heart, brain, liver, muscle

and stomach.

Sequence similarities

Contains 1 bHLH (basic helix-loop-helix) domain.

Contains 1 Orange domain.

Post-translational modifications

Ubiquitinated; which may lead to proteasomal degradation.

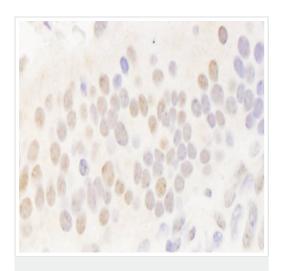
Sumoylation inhibits its ubiquitination and promotes its negative regulation of the CLOCK-

ARNTL/BMAL1 heterodimer transcriptional activator activity.

Cellular localization

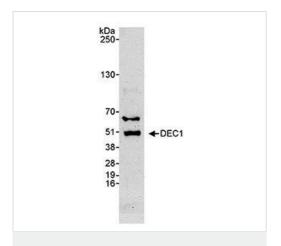
Cytoplasm. Nucleus. Predominantly localized in the nucleus (PubMed:11278694).

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling SHARP2/DEC1 with ab70723 at 1/1000 (1µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-SHARP2/DEC1 antibody (ab70723)



Western blot - Anti-SHARP2/DEC1 antibody (ab70723)

Anti-SHARP2/DEC1 antibody (ab70723) at 0.1 μ g/ml + Whole cell lysate from HeLa cells at 50 μ g

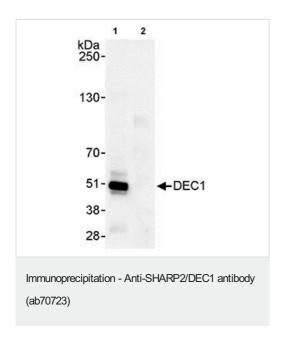
Developed using the ECL technique.

Predicted band size: 45 kDa **Observed band size:** 50 kDa

Additional bands at: 65 kDa. We are unsure as to the identity of

these extra bands.

Exposure time: 3 minutes



Detection of Human SHARP2/DEC1 by Immunoprecipitation in whole cell lysate from 293T cells (1 mg for IP, 20% of IP loaded), using ab70723 at 3 μ g/mg lysate (Lane 1). Lane 2 represents rabbit IgG IP control. Subsequent Western blot detection of SHARP2/DEC1 was performed using ab70723 at 1 μ g/ml. Chemiluminescence with exposure time of 30 seconds

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