

DEC1 (N-20)-R: sc-18009-R

BACKGROUND

Human DEC1, also known as SHARP2, is a 412 amino acid, basic helix-loop-helix (bHLH) containing protein that is involved in the control of proliferation and/or differentiation of several cell types including nerve cells, fibroblasts and chondrocytes. The bHLH region of DEC1 is structurally similar to the bHLH regions of the mammalian HES family, *Drosophila hairy* and *Drosophila Enhancer of split m7*. DEC1 is a novel direct target for cAMP in a wide range of cells, and is involved in the control of gene expression in cAMP-activated cells. Brief light impulses induce the expression of DEC1 in a phase-dependent manner. DEC1 is highly expressed in cartilage, intestine, lung and spleen. DEC1 and DEC2 play a role in regulating the mammalian molecular clock by suppressing the transcription of specific clock genes. Both DEC1 and DEC2 are detected in the suprachiasmatic nucleus in a circadian fashion.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BHLHE40 (human) mapping to 3p26.1; Bhlhe40 (mouse) mapping to 6 E2.

SOURCE

DEC1 (N-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping of DEC1 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18009 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DEC1 (N-20)-R is recommended for detection of DEC1 of human and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DEC1 (N-20)-R is also recommended for detection of DEC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DEC1 siRNA (h): sc-106769, DEC1 siRNA (m): sc-142950, DEC1 shRNA Plasmid (h): sc-106769-SH, DEC1 shRNA Plasmid (m): sc-142950-SH, DEC1 shRNA (h) Lentiviral Particles: sc-106769-V and DEC1 shRNA (m) Lentiviral Particles: sc-142950-V.

Molecular Weight of DEC1: 43 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **DEC1 (S-8): sc-101023**, our highly recommended monoclonal alternative to DEC1 (N-20).