

DEC R1 (N-14): sc-102476

BACKGROUND

β -oxidation refers to the enzymatic process by which Acyl-CoA is catalytically broken down to yield Acetyl-CoA, the first molecule required for the Krebs cycle. DEC R1 (2,4-dienoyl-CoA reductase, mitochondrial), also known as DEC R, is a 335 amino acid mitochondrial protein that exists as a homotetramer and belongs to the family of short-chain dehydrogenases/reductases. Expressed in heart, pancreas, liver, lung, kidney and skeletal muscle, DEC R1 functions as an auxiliary enzyme of β -oxidation where it participates in the metabolism of unsaturated fatty enoyl-CoA esters. Specifically, DEC R1 uses NADP⁺ to catalyze the reduction of 2,4-dienoyl-CoA to yield trans-3-enoyl-CoA, which can then be used as an intermediate in the Krebs cycle. Additionally, DEC R1 is thought to function as a tumor suppressor, possibly downregulating the expression of Neu and slowing the rate of tumorigenesis.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: DEC R1 (human) mapping to 8q21.3.

SOURCE

DEC R1 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of DEC R1 of human origin.

PRODUCT

Each vial contains 100 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-102476 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DEC R1 (N-14) is recommended for detection of DEC R1 of human 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); non cross-reactive with family member DEC R2.

Suitable for use as control antibody for DEC R1 siRNA (h): sc-77514, DEC R1 shRNA Plasmid (h): sc-77514-SH and DEC R1 shRNA (h) Lentiviral Particles: sc-77514-V.

Molecular Weight of DEC R1: 36 kDa.

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.

PROTOCOLS

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