

DEHAL1 (D-18): sc-242568

BACKGROUND

Iodotyrosine dehalogenase 1 (DEHAL1), also designated IYD-1, is a transmembrane protein involved in the recycling of iodide in the human thyroid. Specifically, DEHAL1 catalyzes the oxidative NADPH-dependent deiodination of monoiodotyrosine (L-MIT) or diiodotyrosine (L-DIT). It is highly expressed in thyroid and is expressed at a lower levels in kidney and trachea. DEHAL1 exists as seven isoforms, which are a result of alternative splicing. Mutations in the gene encoding DEHAL1 are the cause of congenital hypothyroidism due to dysmorphogenesis type 4 (CHDH4). Patients with this defect present a phenotype of severe hypothyroidism, goiter, excessive levels of iodotyrosine in serum and urine and variable mental deficits derived from unrecognized hypothyroidism.

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CHROMOSOMAL LOCATION

Genetic locus: IYD (human) mapping to 6q25.1.

SOURCE

DEHAL1 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of DEHAL1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-242568 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DEHAL1 (D-18) is recommended for detection of DEHAL1 of human and rat 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).

DEHAL1 (D-18) is also recommended for detection of DEHAL1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DEHAL1 siRNA (h): sc-95564, DEHAL1 shRNA Plasmid (h): sc-95564-SH and DEHAL1 shRNA (h) Lentiviral Particles: sc-95564-V.

Molecular Weight of DEHAL1: 22/29/31/33/34 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.