SANTA CRUZ BIOTECHNOLOGY, INC.

HAL (C-18): sc-242988

BACKGROUND

HAL (histidine ammonia-lyase), also known as histidase, HIS or HSTD, is a 657 amino acid protein that belongs to the PAL/histidase family. Considered a cytosolic enzyme, HAL catalyzes the first reaction in histidine catabolism, the non-oxidative deamination of L-histidine to *trans*-urocanic acid. Urocanic acid is the main ultraviolet (UV) light absorption factor of the stratum corneum of the skin. Defects in the gene encoding HAL causes histidinemia, also referred to as histidinuria. Histidinemia is an autosomal recessive disease characterized by increased levels of histidine, histamine and imidazole in blood, urine and cerebrospinal fluid. Histidinemia also results in decreased levels of the metabolite urocanic acid in blood, urine, and skin cells. Tryptophan and 1-methyltryptophan are strong inhibitors of HAL.

REFERENCES

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4. Schwede, T.F., et al. 1999. Homogenization and crystallization of histidine ammonia-lyase by exchange of a surface cysteine residue. Protein Eng. 12: 151-153.
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8. Kawai, Y., et al. 2005. Molecular characterization of histidinemia: identification of four missense mutations in the histidase gene. Hum. Genet. 116: 340-346.
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CHROMOSOMAL LOCATION

Genetic locus: HAL (human) mapping to 12q23.1; Hal (mouse) mapping to 10 C2.

SOURCE

HAL (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HAL of human origin.

RESEARCH USE

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

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-242988 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HAL (C-18) is recommended for detection of HAL of mouse, rat and 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).

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

Suitable for use as control antibody for HAL siRNA (h): sc-95794, HAL siRNA (m): sc-145892, HAL shRNA Plasmid (h): sc-95794-SH, HAL shRNA Plasmid (m): sc-145892-SH, HAL shRNA (h) Lentiviral Particles: sc-95794-V and HAL shRNA (m) Lentiviral Particles: sc-145892-V.

Molecular Weight of HAL: 72 kDa.

Positive Controls: human fetal liver tissue.

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.

PROTOCOLS

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