SANTA CRUZ BIOTECHNOLOGY, INC.

RNase HII-B (E-18): sc-84590

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RNase HII is a heterotrimeric enzyme complex responsible for the degradation of RNA found in RNA:DNA hybrids and is composed of one catalytic subunit and two non-catalytic subunits. RNase HII-B (ribonuclease H2, subunit B), also known as RNASEH2B, DLEU8, AGS2, FLJ11712 or Aicardi-Goutieres syndrome 2 protein, is one of the non-catalytic subunits of the RNase HII complex. While ubiquitously expressed, RNase HII-B localizes to the nucleus and is 312 amino acids long. Multiple natural transcript variants exist for the RNase HII-B gene. RNase HII-B is likely involved in the removal of RNA primers of lagging strand Okazaki fragments during DNA replication. Defects in the gene encoding RNase HII-B, which maps to human chromosome 13q14.3, are the cause of Aicardi-Goutieres syndrome type 2 (AGS2), an autosomal recessive neurological disorder characterized by leukodystrophy, cerebral atrophy, intracranial calcifications and chronic cerebrospinal fluid (CSF) lymphocytosis. Patients affected by AGS2 have severe neurological dysfunctions and often die in early childhood.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RNASEH2B (human) mapping to 13q14.3; Rnaseh2b (mouse) mapping to 14 D1.

SOURCE

RNase HII-B (E-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of RNase HII-B 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.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84590 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNase HII-B (E-18) is recommended for detection of RNase HII-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

RNase HII-B (E-18) is also recommended for detection of RNase HII-B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RNase HII-B siRNA (h): sc-76410, RNase HII-B siRNA (m): sc-152995, RNase HII-B shRNA Plasmid (h): sc-76410-SH, RNase HII-B shRNA Plasmid (m): sc-152995-SH, RNase HII-B shRNA (h) Lentiviral Particles: sc-76410-V and RNase HII-B shRNA (m) Lentiviral Particles: sc-152995-V.

Molecular Weight of RNase HII-B: 35 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.