HEATR5B (S-14): sc-168067



The Power to Question

BACKGROUND

HEATR5B (HEAT repeat containing 5B) is a 2,071 amino acid protein belonging to the HEATR5 family. HEATR5B exists as three alternatively spliced isoforms and consists of three HEAT (huntingtin, elongation factor 3 (EF3), protein phosphatase 2A (PP2A) and the yeast PI 3-kinase Tor1) repeats. HEAT repeats form rod-like helical structures that are involved in intracellular transport. HEATR5B is encoded by a gene located on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

REFERENCES

- Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
- 2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
- 3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
- Thomas, A.C., et al. 2006. ABCA12 is the major harlequin ichthyosis gene.
 J. Invest. Dermatol. 126: 2408-2413.
- Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. Dermatology 215: 155-159.
- Marshall, J.D., et al. 2007. Alström syndrome. Eur. J. Hum. Genet. 15: 1193-1202.
- Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. Hum. Mutat. 28: 1114-1123.
- 8. Tabas, I. 2007. A two-carbon switch to sterol-induced autophagic death. Autophagy 3: 38-41.
- 9. Wang, D.Q. 2007. Regulation of intestinal cholesterol absorption. Annu. Rev. Physiol. 69: 221-248.

CHROMOSOMAL LOCATION

Genetic locus: HEATR5B (human) mapping to 2p22.2; Heatr5b (mouse) mapping to 17 E3.

SOURCE

HEATR5B (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HEATR5B 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 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-168067 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HEATR5B (S-14) is recommended for detection of HEATR5B 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); non cross-reactive with HEATR5A.

HEATR5B (S-14) is also recommended for detection of HEATR5B in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for HEATR5B siRNA (h): sc-94642, HEATR5B siRNA (m): sc-145924, HEATR5B shRNA Plasmid (h): sc-94642-SH, HEATR5B shRNA Plasmid (m): sc-145924-SH, HEATR5B shRNA (h) Lentiviral Particles: sc-94642-V and HEATR5B shRNA (m) Lentiviral Particles: sc-145924-V.

Molecular Weight of HEATR5B: 224 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com