

# HEATR7B1 (S-16): sc-247128

## BACKGROUND

HEAT repeats form rod-like helical structures that are involved in intracellular transport. HEATR7B1 (HEAT repeat-containing protein 7B1) is a 1,706 amino acid protein that contains 14 HEAT repeats. The gene encoding HEATR7B1 maps to human chromosome 2, the second largest human chromosome, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene. Interestingly, chromosome 2 contains what appears to be a vestigial second centromere and vestigial telomeres which gives credence to the hypothesis that human chromosome 2 is the result of an ancient fusion of two ancestral chromosomes seen in modern form today in apes.

## REFERENCES

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## RESEARCH USE

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

## CHROMOSOMAL LOCATION

Genetic locus: HEATR7B1 (human) mapping to 2q37.1; Heatr7b1 (mouse) mapping to 1 D.

## SOURCE

HEATR7B1 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HEATR7B1 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-247128 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HEATR7B1 (S-16) is recommended for detection of HEATR7B1 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 HEATR7B2.

HEATR7B1 (S-16) is also recommended for detection of HEATR7B1 in additional species, including bovine and porcine.

Suitable for use as control antibody for HEATR7B1 siRNA (h): sc-94476, HEATR7B1 siRNA (m): sc-147425, HEATR7B1 shRNA Plasmid (h): sc-94476-SH, HEATR7B1 shRNA Plasmid (m): sc-147425-SH, HEATR7B1 shRNA (h) Lentiviral Particles: sc-94476-V and HEATR7B1 shRNA (m) Lentiviral Particles: sc-147425-V.

Molecular Weight of HEATR7B1: 193 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.