

# HEATR7B2 (K-14): sc-168072

## BACKGROUND

HEAT repeats form rod-like helical structures that are involved in intracellular transport. HEATR7B2 (HEAT repeat-containing protein 7B2) is a 1,585 amino acid protein that contains 15 HEAT repeats. Existing as two alternatively spliced isoforms, the gene encoding HEATR7B2 maps to human chromosome 5p13.1 and mouse chromosome 15 A1. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Cockayne syndrome is associated with chromosome 5 through the ERCC8 gene and familial adenomatous polyposis via the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

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2. McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. *Hum. Mutat.* 10: 317-321.
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4. Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. *Dis. Colon Rectum* 48: 2148-2152.
5. Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. *Mol. Cell* 28: 386-397.
6. Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. *Am. J. Med. Genet. A* 149A: 2513-2521.
7. Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. *Cancer* 115: 5746-5751.
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## CHROMOSOMAL LOCATION

Genetic locus: HEATR7B2 (human) mapping to 5p13.1; Heatr7b2 (mouse) mapping to 15 A1.

## SOURCE

HEATR7B2 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HEATR7B2 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-168072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HEATR7B2 (K-14) is recommended for detection of HEATR7B2 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).

HEATR7B2 (K-14) is also recommended for detection of HEATR7B2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for HEATR7B2 siRNA (h): sc-91747, HEATR7B2 siRNA (m): sc-140080, HEATR7B2 shRNA Plasmid (h): sc-91747-SH, HEATR7B2 shRNA Plasmid (m): sc-140080-SH, HEATR7B2 shRNA (h) Lentiviral Particles: sc-91747-V and HEATR7B2 shRNA (m) Lentiviral Particles: sc-140080-V.

Molecular Weight of HEATR7B2 isoforms 1/2: 181/146 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](http://www.scbt.com) or our catalog for detailed protocols and support products.