SANTA CRUZ BIOTECHNOLOGY, INC.

R3HDML (Y-12): sc-85860

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The Power to Question

BACKGROUND

A conserved sequence motif, the R3H domain has been identified in over 100 proteins and is suggested to be involved in polynucleotide-binding, including DNA, RNA and single-stranded DNA. R3HDML (R3H domain containing-like) is a 253 amino acid cysteine-rich secretory protein belonging to the CRISP family. Considered a putative serine protease inhibitor, R3HDML is encoded by a gene located on human chromosome 20, which contains nearly 63 million bases and encodes over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes that are thought to be important for seminal production and may be potential targets for male contraception.

REFERENCES

1. Liepinsh, E., et al. 2003. Solution structure of the R3H domain from human Smubp-2. J. Mol. Biol. 326: 217-223.
2. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. Epilepsia 47: 543-549.
3. Joó, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. J. Reprod. Med. 51: 209-212.
4. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. Asian J. Androl. 9: 540-544.
5. O'Rand, M.G., et al. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. Soc. Reprod. Fertil. Suppl. 63: 445-453.
6. Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4-KCNQ2 genes loci. Eur. J. Med. Genet. 50: 441-445.

CHROMOSOMAL LOCATION

Genetic locus: R3HDML (human) mapping to 20q13.12; R3hdml (mouse) mapping to 2 H3.

SOURCE

R3HDML (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of R3HDML 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-85860 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

R3HDML (Y-12) is recommended for detection of R3HDML 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).

R3HDML (Y-12) is also recommended for detection of R3HDML in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for R3HDML siRNA (h): sc-76310, R3HDML siRNA (m): sc-151376, R3HDML shRNA Plasmid (h): sc-76310-SH, R3HDML shRNA Plasmid (m): sc-151376-SH, R3HDML shRNA (h) Lentiviral Particles: sc-76310-V and R3HDML shRNA (m) Lentiviral Particles: sc-151376-V.

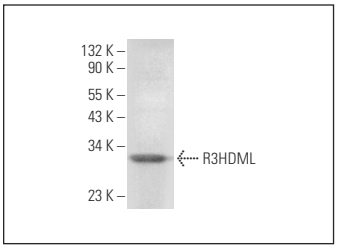
Molecular Weight of R3HDML: 29 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



R3HDML (Y-12): sc-85860. Western blot analysis of R3HDML expression in Hep G2 whole cell lysate.

PROTOCOLS

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