SANTA CRUZ BIOTECHNOLOGY, INC.

IGHMBP2 (N-14): sc-168143

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The Power to Question

BACKGROUND

IGHMBP2 (immunoglobulin mu binding protein 2), is also known as HCSA, HMN6, CATF1, SMARD1 or SMUBP2, is a 993 amino acid nuclear and cytoplasmic protein that is ubiquitously expressed. Belonging to the DNA2/NAM7 helicase family, IGHMBP2 is a 5' to 3' helicase that unwinds RNA and DNA duplexes in an ATP-dependent reaction. IGHMBP2 also acts as a transcriptional regulator and is necessary for transcriptional activation of the flounder liver-type antifreeze protein gene. IGHMBP2 exists as a homooligomer and is part of the cytosolic ribonucleoprotein complex. Mutations in the gene encoding IGHMBP2 are suggested to lead to distal hereditary motor neuronopathy type 6 (HMN6), also known as spinal muscular atrophy distal autosomal recessive 1 (DSMA1) or spinal muscular atrophy with respiratory distress 1 (SMARD1). HMN6 is characterized by weakness and wasting of distal muscles of the anterior tibial and peroneal compartments of the legs and severe respiratory distress.

REFERENCES

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6. Maystadt, I., et al. 2004. Allelic heterogeneity of SMARD1 at the IGHMBP2 locus. Hum. Mutat. 23: 525-526.
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8. de Planell-Saguer, M., et al. 2009. Biochemical and genetic evidence for a role of IGHMBP2 in the translational machinery. Hum. Mol. Genet. 18: 2115-2126.
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CHROMOSOMAL LOCATION

Genetic locus: IGHMBP2 (human) mapping to 11q13.3; Ighmbp2 (mouse) mapping to 19 A.

SOURCE

IGHMBP2 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IGHMBP2 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-168143 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-168143 X, 200 µg/0.1 ml.

APPLICATIONS

IGHMBP2 (N-14) is recommended for detection of IGHMBP2 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).

IGHMBP2 (N-14) is also recommended for detection of IGHMBP2 in additional species, including canine.

Suitable for use as control antibody for IGHMBP2 siRNA (h): sc-96440, IGHMBP2 siRNA (m): sc-146184, IGHMBP2 shRNA Plasmid (h): sc-96440-SH, IGHMBP2 shRNA Plasmid (m): sc-146184-SH, IGHMBP2 shRNA (h) Lentiviral Particles: sc-96440-V and IGHMBP2 shRNA (m) Lentiviral Particles: sc-146184-V.

IGHMBP2 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of IGHMBP2: 110 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 or our catalog for detailed protocols and support products.