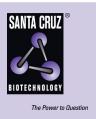
SANTA CRUZ BIOTECHNOLOGY, INC.

Imp3 (AT32E9): sc-517409



BACKGROUND

Imp3, also known as BRMS2, C15orf12 or MRPS4, is a 184 amino acid protein that contains one S4 RNA-binding domain and is the mammalian homolog of the yeast Imp3 protein. Localized to the nucleus, Imp3 exists as a component of a heterotrimeric complex consisting of MPP10, Imp3 and Imp4 and, in this complex, plays a key role in early cleavage events during pre-18S ribosomal processing. The gene encoding Imp3 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

- Baserga, S.J., Agentis, T.M., Wormsley, S., Dunbar, D.A. and Lee, S. 1997. Mpp10p, a new protein component of the U3 snoRNP required for processing of 18S rRNA precursors. Nucleic Acids Symp. Ser. 36: 64-67.
- Lee, S.J. and Baserga, S.J. 1997. Functional separation of pre-rRNA processing steps revealed by truncation of the U3 small nucleolar ribonucleoprotein component, Mpp10. Proc. Natl. Acad. Sci. USA 94: 13536-13541.
- Lee, S.J. and Baserga, S.J. 1999. Imp3p and Imp4p, two specific components of the U3 small nucleolar ribonucleoprotein that are essential for pre-18S rRNA processing. Mol. Cell. Biol. 19: 5441-5452.
- Granneman, S., Gallagher, J.E., Vogelzangs, J., Horstman, W., van Venrooij, W.J., Baserga, S.J. and Pruijn, G.J. 2003. The human Imp3 and Imp4 proteins form a ternary complex with hMpp10, which only interacts with the U3 snoRNA in 60-80S ribonucleoprotein complexes. Nucleic Acids Res. 31: 1877-1887.
- Dosil, M. and Bustelo, X.R. 2004. Functional characterization of Pwp2, a WD family protein essential for the assembly of the 90S pre-ribosomal particle. J. Biol. Chem. 279: 37385-37397.
- Cachón-González, M.B., Wang, S.Z., Lynch, A., Ziegler, R., Cheng, S.H. and Cox, T.M. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. Proc. Natl. Acad. Sci. USA 103: 10373-10378.
- 7. Diene, G., Postel-Vinay, A., Pinto, G., Polak, M. and Tauber, M. 2007. The Prader-Willi syndrome. Ann. Endocrinol. 68: 129-137.
- 8. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. Genome Biol. 8: R114

CHROMOSOMAL LOCATION

Genetic locus: IMP3 (human) mapping to 15q24.2.

SOURCE

Imp3 (AT32E9) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 1-184 of Imp3 of human origin.

PRODUCT

Each vial contains 100 $\mu g~lgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Imp3 (AT32E9) is recommended for detection of Imp3 of 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).

Suitable for use as control antibody for Imp3 siRNA (h): sc-89917, Imp3 shRNA Plasmid (h): sc-89917-SH and Imp3 shRNA (h) Lentiviral Particles: sc-89917-V.

Molecular Weight of Imp3: 22 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

STORAGE

Store at 4° C, **D0 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 for detailed protocols and support products.