SANTA CRUZ BIOTECHNOLOGY, INC.

JAMP (Y-12): sc-162966

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

JAMP (JNK1-associated membrane protein), also known as JKAMP, medulloblastoma antigen MU-MB-50.4 or HSPC213, is a 326 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum. In response to stress stimuli, such as UV irradiation, JAMP binds and modulates JNK activity, and additionally interacts with RNF5. JAMP may recruit members of the proteasome and endoplasmic reticulum-associated degradation (ERAD) system, thus assisting in the degradation of misfolded endoplasmic reticulum proteins. Existing as five alternatively spliced isoforms, the gene encoding JAMP maps to human chromosome 14q23.1 and mouse chromosome 12 C3. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. 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

1. Kadoya, T., et al. 2005. JAMP, a Jun N-terminal kinase 1 (JNK1)-associated membrane protein, regulates duration of JNK activity. Mol. Cell. Biol. 25: 8619-8630.
2. Tcherpakov, M., et al. 2008. JAMP optimizes ERAD to protect cells from unfolded proteins. Mol. Biol. Cell 19: 5019-5028.
3. 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.
4. Sazawal, S., et al. 2009. Haematological molecular profile of acute myelogenous leukaemia in India. Indian J. Med. Res. 129: 256-261.
5. Tcherpakov, M., et al. 2009. Regulation of endoplasmic reticulum-associated degradation by RNF5-dependent ubiquitination of JNK-associated membrane protein (JAMP). J. Biol. Chem. 284: 12099-12109.

CHROMOSOMAL LOCATION

Genetic locus: JKAMP (human) mapping to 14q23.1; Jkamp (mouse) mapping to 12 C3.

SOURCE

JAMP (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of JAMP 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-162966 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.

APPLICATIONS

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

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

Suitable for use as control antibody for JAMP siRNA (h): sc-92141, JAMP siRNA (m): sc-146318, JAMP shRNA Plasmid (h): sc-92141-SH, JAMP shRNA Plasmid (m): sc-146318-SH, JAMP shRNA (h) Lentiviral Particles: sc-92141-V and JAMP shRNA (m) Lentiviral Particles: sc-146318-V.

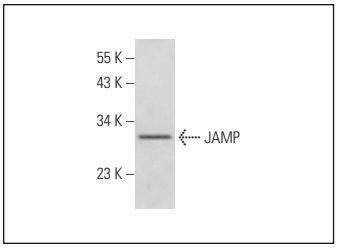
Molecular Weight of JAMP isoforms 1/2/3/4/5: 37/28/35/35/36 kDa.

Positive Controls: mouse brain extract: sc-2253.

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



JAMP (Y-12): sc-162966. Western blot analysis of JAMP expression in mouse brain tissue extract.

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.