SANTA CRUZ BIOTECHNOLOGY, INC.

MADD (H-300): sc-98434

BACKGROUND

MADD (MAP-kinase activating death domain), also known as DENN, IG20 or KIAA0358, is a 1,647 amino acid multi-pass membrane protein that contains one DENN domain and one death domain and belongs to the MADD family. Expressed at high levels in adult testis, heart and ovary, as well as in fetal brain and kidney, MADD interacts with TNF-R1 and plays an important role in cell proliferation, survival and death, specifically by regulating alternative splicing events. Overexpression of MADD stimulates the mitogen-activated protein (MAP) kinase extracellular signal-regulated kinase (ERK), thereby influencing MAP kinase signaling cascades. Multiple isoforms of MADD exist due to alternative splicing events.

REFERENCES

1. Chow, V.T., et al. 1996. DENN, a novel human gene differentially expressed in normal and neoplastic cells. DNA Seq. 6: 263-273.
2. Schievella, A.R., et al. 1997. MADD, a novel death domain protein that interacts with the type 1 tumor necrosis factor receptor and activates mitogen-activated protein kinase. J. Biol. Chem. 272: 12069-12075.
3. Chow, V.T., et al. 1998. The human DENN gene: genomic organization, alternative splicing, and localization to chromosome 11p11.21-p11.22. Genome 41: 543-552.
4. Telliez, J.B., et al. 2000. LRDD, a novel leucine rich repeat and death domain containing protein. Biochim. Biophys. Acta 1478: 280-288.
5. Al-Zoubi, A.M., et al. 2001. Contrasting effects of IG20 and its splice isoforms, MADD and DENN-SV, on tumor necrosis factor α-induced apoptosis and activation of caspase-8 and -3. J. Biol. Chem. 276: 47202-47211.
6. Lim, K.M., et al. 2002. Induction of marked apoptosis in mammalian cancer cell lines by antisense DNA treatment to abolish expression of DENN (differentially expressed in normal and neoplastic cells). Mol. Carcinog. 35: 110-126.
7. Efimova, E., et al. 2003. IG20, a MADD splice variant, increases cell susceptibility to γ-irradiation and induces soluble mediators that suppress tumor cell growth. Cancer Res. 63: 8768-8776.
8. Efimova, E.V., et al. 2004. IG20, in contrast to DENN-SV, (MADD splice variants) suppresses tumor cell survival, and enhances their susceptibility to apoptosis and cancer drugs. Oncogene 23: 1076-1087.
9. Mulherkar, N., et al. 2007. MADD/DENN splice variant of the IG20 gene is a negative regulator of caspase-8 activation. Knockdown enhances TRAIL-induced apoptosis of cancer cells. J. Biol. Chem. 282: 11715-11721.

CHROMOSOMAL LOCATION

Genetic locus: MADD (human) mapping to 11p11.2; Madd (mouse) mapping to 2 E1.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

MADD (H-300) is a rabbit polyclonal antibody raised against amino acids 1-298 mapping at the N-terminus of MADD 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98434 X, 200 µg/0.1 ml.

APPLICATIONS

MADD (H-300) is recommended for detection of MADD 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MADD (H-300) is also recommended for detection of MADD in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MADD siRNA (h): sc-75726, MADD siRNA (m): sc-75727, MADD shRNA Plasmid (h): sc-75726-SH, MADD shRNA Plasmid (m): sc-75727-SH, MADD shRNA (h) Lentiviral Particles: sc-75726-V and MADD shRNA (m) Lentiviral Particles: sc-75727-V.

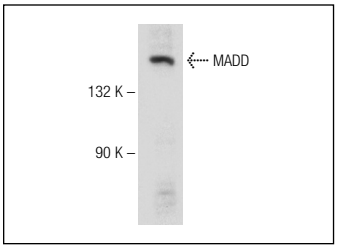
MADD (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of MADD: 176 kDa.

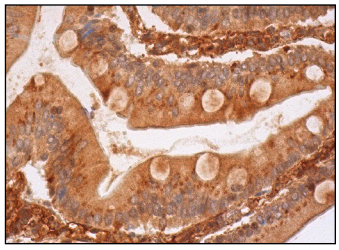
Molecular Weight (observed) of MADD: 200 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136.

DATA



MADD (H-300): sc-98434. Western blot analysis of MADD expression in HEK293 whole cell lysate.



MADD (H-300): sc-98434. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.