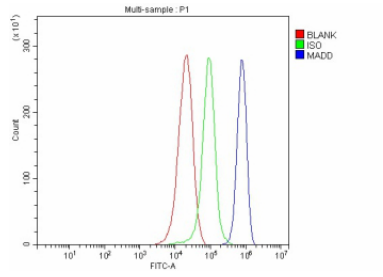
MADD Antibody / MAP kinase-activating death domain (FY12091)

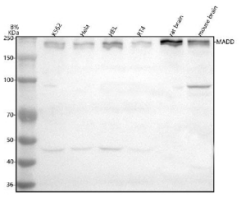
Catalog No.	Formulation	Size
FY12091	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8WXG6
Applications	Western Blot: 0.25-0.5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This MADD antibody is available for research use only.



Flow Cytometry analysis of Hela cells using anti-MADD antibody. Overlay histogram showing Hela cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-MADD antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of MADD using anti-MADD antibody. Lane 1: human K562 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: human RT4 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MADD antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected band size for MADD is at 183 kDa but can be observed at 220-250 kDa (and as a possible doublet) due to alternative splicing and phosphorylation.

Description

MADD antibody detects MAP kinase-activating death domain protein, encoded by the MADD gene. MAP kinase-activating death domain protein is a multi-domain protein involved in apoptosis regulation, MAPK signaling, and vesicle trafficking. MADD antibody provides researchers with a specific reagent for studying TNF receptor signaling, neurodegeneration, and cancer.

MAP kinase-activating death domain protein interacts with TNF receptor 1 and other death receptors through its death domain, modulating apoptosis and survival. Research using MADD antibody has shown that it can function as an anti-apoptotic factor by inhibiting TNF-induced cell death, while simultaneously promoting MAP kinase signaling pathways that enhance proliferation. This dual role highlights MADD as a regulator of cell fate decisions.

Studies with MADD antibody have revealed that MADD is widely expressed but is particularly abundant in brain, endocrine tissues, and tumors. It is expressed as multiple isoforms through alternative splicing, including long and short forms that differ in their ability to regulate apoptosis and signaling. These isoforms allow MADD to act as a context-dependent modulator of signaling cascades.

Dysregulation of MAP kinase-activating death domain protein has been associated with cancer and neurodegenerative disease. Research using MADD antibody has shown that overexpression supports tumor growth by suppressing apoptosis, while mutations or altered expression in neurons contribute to neurodegenerative pathology. Elevated expression has also been observed in thyroid cancers and other tumors, positioning MADD as a potential biomarker and therapeutic target.

Beyond apoptosis, MADD participates in intracellular trafficking. Research using MADD antibody has demonstrated interactions with Rab3 and related GTPases, regulating synaptic vesicle release and exocytosis. This adds a neurobiological dimension to MADD function and explains its abundance in neurons.

MADD antibody is widely applied in western blotting, immunohistochemistry, and immunoprecipitation. Western blotting quantifies isoform expression across tissues, immunohistochemistry demonstrates tumor expression, and immunoprecipitation identifies receptor and GTPase interactions. These applications make MADD antibody indispensable for apoptosis, signaling, and cancer research.

By providing validated MADD antibody reagents, NSJ Bioreagents supports studies into TNF receptor pathways, apoptosis, and disease. Detection of MAP kinase-activating death domain protein provides researchers with insight into how death domain proteins regulate survival and pathology.

Application Notes

Optimal dilution of the MADD antibody should be determined by the researcher.

Immunogen

E.coli-derived human MADD recombinant protein (Position: K5-Y329) was used as the immunogen for the MADD antibody.

Storage

After reconstitution, the MADD antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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