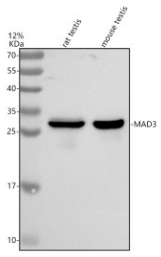
MXD3 Antibody 21M81 / MAD3 Monoclonal Antibody [clone 21M81] (FY13711)

Catalog No.	Formulation	Size
FY13711	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	21M81
Purity	Affinity purified
Applications	Western blot: 1:500
Limitations	This MXD3 Antibody 21M81 / MAD3 Monoclonal Antibody is available for research use only.



MXD3 Antibody 21M81 WB Analysis of Rat and Mouse Testis Tissues. Western blot analysis of rat testis (lane 1) and mouse testis (lane 2) tissue lysates using MAD3 Monoclonal Antibody clone 21M81. A prominent immunoreactive band is detected at approximately 28 kDa in both samples, compared with the calculated molecular weight of 23.5 kDa. Published studies have documented MXD3 phosphorylation and alternative splice variants, which may contribute to differences in apparent molecular weight.

Description

MXD3 Antibody 21M81 / MAD3 Monoclonal Antibody recognizes MAX dimerization protein 3 (MXD3), a member of the MYC/MAX/MXD network of basic helix-loop-helix leucine zipper transcription factors. Also known as MAD3, MXD3 participates in the regulation of gene expression associated with cellular proliferation, differentiation, and developmental processes. Its biological activity is closely connected to MAX, a transcriptional partner shared by several proteins that influence MYC-dependent gene regulation.

MXD3 contains a basic helix-loop-helix leucine zipper domain that mediates dimerization with MAX and enables recognition of specific DNA sequences, including E-box regulatory elements. Members of the MXD family generally

oppose MYC-dependent transcription by recruiting transcriptional corepressor complexes. Their conserved N-terminal SID domain interacts with SIN3-associated proteins, which can recruit histone deacetylases and promote transcriptional repression. These interactions provide a mechanism for regulating chromatin accessibility and the expression of genes involved in cell growth and differentiation.

Although MXD3 shares structural characteristics with other MXD proteins, its biological functions are not identical. MXD3 has been associated with proliferating cell populations and can exhibit context-dependent effects on cell cycle regulation. Studies of the MYC/MAX/MXD network indicate that the balance between transcriptional activators and repressors is influenced by protein expression, dimerization partner availability, and cellular signaling conditions. MXD3 therefore contributes to a regulatory system in which related transcription factors can produce distinct biological outcomes.

MXD3 expression has been investigated in developing tissues and proliferative cellular compartments, where coordinated transcriptional regulation is essential for normal growth. Research has also examined MXD3 in malignancies, particularly in relation to MYC-associated signaling and altered cell proliferation. Depending on the cellular context, changes in MXD3 expression may influence transcriptional programs involved in growth control, survival, and differentiation. These observations emphasize the importance of distinguishing individual MXD family members when examining their regulatory functions.

As part of the broader MAX-associated transcription factor network, MXD3 provides an important connection between DNA-binding regulatory complexes and cellular responses that determine proliferative behavior. MXD3 Antibody 21M81 is relevant to investigations of MAX-dependent transcription, MYC-associated regulatory pathways, cell cycle control, and the molecular mechanisms governing cellular differentiation.

Explore our Cell Biology Antibodies for additional targets involved in transcriptional regulation, MYC/MAX signaling, cell cycle progression, and cellular differentiation.

Application Notes

Optimal dilution of the MXD3 Antibody 21M81 / MAD3 Monoclonal Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Max dimerization protein 3 was used as the immunogen for the MXD3 Antibody 21M81.

Storage

The MXD3 Antibody 21M81 can be stored at -20oC.

Alternate Names

MAX dimerization protein 3 antibody, MAD3 transcription factor antibody, MAX dimerization protein MAD3 antibody, MXD3 transcriptional regulator antibody, MAX-interacting transcription factor antibody

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