

Product Datasheet

MIST1 Antibody (6E8/A12/C11P1) NBP2-22478

Unit Size: 100 ug

Store at -20C. Avoid freeze-thaw cycles.

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NBP2-22478

MIST1 Antibody (6E8/A12/C11P1)

Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	6E8/A12/C11P1
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein A purified
Buffer	PBS with 1 mg/ml BSA

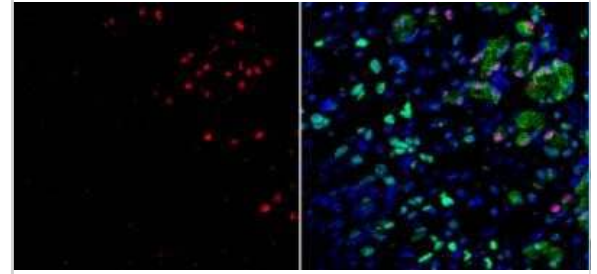
Product Description	
Description	Novus Biologicals Mouse MIST1 Antibody (6E8/A12/C11P1) (NBP2-22478) is a monoclonal antibody validated for use in IHC, WB and ICC/IF. Anti-MIST1 Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	168620
Gene Symbol	BHLHA15
Species	Human, Mouse
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Immunogen	Mouse Mist1, C-terminus residues 175-197.

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:100 - 1:500, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:10 - 1:500, Immunohistochemistry-Frozen 1:10 - 1:500
Application Notes	The antibody gives nuclear staining in acinar cells but not in duct or islet cells. IHC reported in a verified customer review.



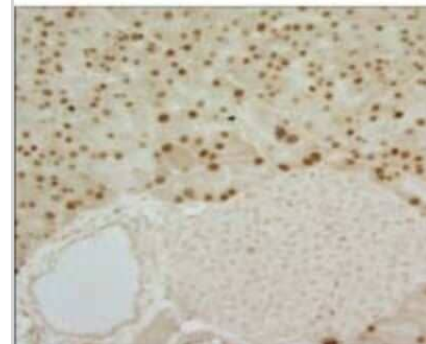
Images

Immunohistochemistry: MIST1 Antibody (6E8/A12/C11P1) [NBP2-22478] - Mist1 expression can be observed in mouse gastric chief cells (red). image is courtesy of customer review.

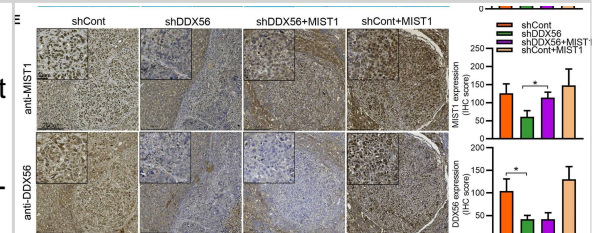


Immunohistochemistry-Paraffin: MIST1 Antibody (6E8/A12/C11P1) [NBP2-22478] - Staining of mouse pancreas tissues. The antibody gives nuclear staining in acinar cells but not in duct or islet cells.

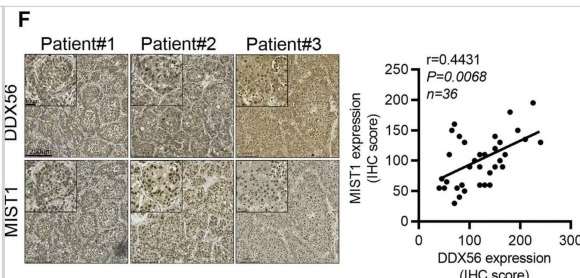
Fig. 1



DDX56 facilitates HCC growth in a MIST1-dependent manner. (A-B) Colony formation (A) and EdU assays (B) revealed that ectopic MIST1 expression in DDX56-silenced cells partially reversed the inhibitory effect on HCC proliferation. Scale bars: 100 μ m. (C) Western blot analysis of the PTEN-AKT axis in DDX56-silenced HCC cells showing that MIST1 overexpression reversed the effect of DDX56 on the PTEN-AKT axis. (D-E) DDX56 knockdown decreased liver tumor formation capacity of HCC cells in the orthotopic HCC implantation models, and the effect was reversed by simultaneously overexpressing MIST1. (D) Representative images showing mouse livers with tumor lesions. Red circles indicate the primary liver tumor. (E) Representative images of IHC staining of DDX56 and MIST1 in paraffin-embedded sections obtained from mouse orthotopic HCC models. Scale bars: 250 μ m (low magnification), 50 μ m (high magnification). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36168636>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



RNA expression profiling identifies MIST1 as a DDX56-downstream target in the regulation of the PTEN-AKT axis. (A) A volcano plot constructed using P-values and fold-change to illustrate the differential downstream target genes between DDX56-silenced MHCC97H cells and control cells ($|\text{fold change}| \geq 2$, $P < 0.05$). Red dots represent significantly upregulated genes while blue dots represent significantly downregulated genes. (B) The top 20 differential downstream genes from RNA-seq results were validated by RT-PCR in MHCC97H cells. (C-D) The mRNA and protein levels of MIST1 in both MHCC97H and Huh-7 cells were detected using RT-PCR and western blotting, respectively. (E) IHC staining shows the expression level of MIST1 in the subcutaneous tumor. Scale bars: 250 μm (top), 50 μm (bottom). (F) Representative images of DDX56 and MIST1 immunohistochemical staining in human HCC tissues (left). Correlation analysis between DDX56 and MIST1 protein expression in HCC tissues (right). Scale bars: 250 μm (low magnification), 50 μm (high magnification). (G) Effect of MIST1 knockdown on MHCC97H and Huh-7 cell proliferation was determined by colony formation assay. (H) The indicated protein was determined using a western blot analysis of MHCC97H and Huh-7 cells infected with MIST1-silencing lentivirus (shMIST1) or lentivirus control (shCont). (I) Western blot analysis of the PTEN-AKT axis in MIST1-overexpressed HCC cells, showing that PTEN overexpression reversed the effect of MIST1 on the PTEN-AKT axis. Cells were transfected with 3 μg of the indicated plasmids for 72 h. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36168636>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Sayols S, Klassek J, Werner C et al. Signalling codes for the maintenance and lineage commitment of embryonic gastric epithelial progenitors *Development* 2020-01-28 [PMID: 32878924] (Immunohistochemistry, Immunohistochemistry-Frozen)

Zhou H, Du Y, Wei X et al. DDX56 transcriptionally activates MIST1 to facilitate tumorigenesis of HCC through PTEN-AKT signaling *Theranostics* 2022-08-15 [PMID: 36168636] (Immunohistochemistry, Immunohistochemistry-Frozen)

Guan L, Viswanathan V, Jiang Y et al. Tert-expressing cells contribute to salivary gland homeostasis and tissue regeneration after radiation therapy *Genes Dev* 2024-07-12 [PMID: 38997156]

He J, Nascakova Z, Leary P et al. Inactivation of the tumor suppressor gene *Apc* synergizes with *H. pylori* to induce DNA damage in murine gastric stem and progenitor cells *Science advances* 2023-11-17 [PMID: 37967175] (ICC/IF, Mouse)

Details:
1:100 dilution



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Products Related to NBP2-22478

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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