

MIST1/bHLHa15 (D7N4B) XP[®] Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H M	Endogenous	23	Rabbit IgG	#Q7RTS1	168620

Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MIST1/bHLHa15 (D7N4B) XP[®] Rabbit mAb recognizes endogenous levels of total MIST1/bHLHa15 protein.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln181 of human MIST1/bHLHa15 protein.

Background

Class A basic helix-loop-helix protein 15 (MIST1, bHLHa15) is a highly conserved basic helix loop helix family transcription factor that binds E-box motifs and regulates the expression of developmentally regulated genes (1). MIST1 can bind DNA as a homodimer, or may heterodimerize with other bHLH proteins to regulate target gene expression (1). MIST1 is expressed in an array of tissues, including salivary glands, stomach, small intestine, and the pancreas, but is generally restricted to secretory cell subtypes (2). In the pancreas, MIST1 is essential for the maturation, maintenance, and function of acinar cells (3). In gastric chief cells, MIST1 regulates the expression of RAB26 and RAB3D, two GTPases that function to regulate secretory granule formation (4). Loss of MIST1 in gastric chief cells may be a potential marker of gastric epithelial neoplasia (5).

Background References

- Lemercier, C. et al. (1997) *Dev Biol* 182, 101-13.
- Pin, C.L. et al. (2000) *Anat Rec* 259, 157-67.
- Pin, C.L. et al. (2001) *J Cell Biol* 155, 519-30.
- Tian, X. et al. (2010) *Mol Cell Biol* 30, 1269-84.
- Lennerz, J.K. et al. (2010) *Am J Pathol* 177, 1514-33.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse

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