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PTBP1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant PTBP1.
Catalog # AT3478a

Product Information

Application	WB, IHC, IF, IP, E
Primary Accession	P26599
Other Accession	NM_002819
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	3H8
Calculated MW	59633

Additional Information

Gene ID	5725
Other Names	Polypyrimidine tract-binding protein 1, PTB, 57 kDa RNA-binding protein PPTB-1, Heterogeneous nuclear ribonucleoprotein I, hnRNP I, PTBP1, PTB
Target/Specificity	PTBP1 (NP_002810, 45 a.a. ~ 144 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 IP~~N/A E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	PTBP1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

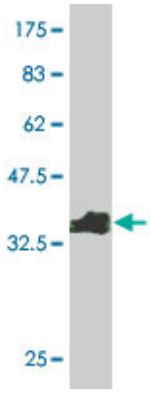
This gene belongs to the subfamily of ubiquitously expressed heterogeneous nuclear ribonucleoproteins (hnRNPs). The hnRNPs are RNA-binding proteins and they complex with heterogeneous nuclear RNA (hnRNA). These proteins are associated with pre-mRNAs in the nucleus and appear to influence pre-mRNA processing and other aspects of mRNA metabolism and transport. While all of the hnRNPs are present in the nucleus, some seem to shuttle between the nucleus and the cytoplasm. The hnRNP proteins have distinct nucleic acid binding properties. The protein encoded by this gene has four repeats of quasi-RNA recognition motif (RRM) domains that bind RNAs. This protein binds to the intronic polypyrimidine tracts that requires pre-mRNA splicing and acts via the protein degradation ubiquitin-proteasome pathway. It may also promote the binding of U2 snRNP to pre-mRNAs. This protein is localized in the nucleoplasm and it is also detected in the perinucleolar structure. Alternatively spliced transcript variants encoding different isoforms have been

described.

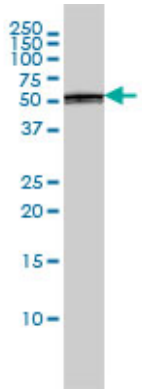
References

Upregulated c-myc expression in multiple myeloma by internal ribosome entry results from increased interactions with and expression of PTB-1 and YB-1. Cobbold LC, et al. Oncogene, 2010 May 13. PMID 20190818.Interactions between PTB RRMs induce slow motions and increase RNA binding affinity. Maynard CM, et al. J Mol Biol, 2010 Mar 19. PMID 20080103.Polypyrimidine tract-binding protein interacts with coxsackievirus B3 RNA and influences its translation. Verma B, et al. J Gen Virol, 2010 May. PMID 20071487.Genome-wide analysis of PTB-RNA interactions reveals a strategy used by the general splicing repressor to modulate exon inclusion or skipping. Xue Y, et al. Mol Cell, 2009 Dec 25. PMID 20064465.Polypyrimidine tract binding proteins (PTB) regulate the expression of apoptotic genes and susceptibility to caspase-dependent apoptosis in differentiating cardiomyocytes. Zhang J, et al. Cell Death Differ, 2009 Nov. PMID 19590510.

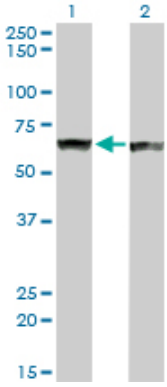
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.74 KDa) .



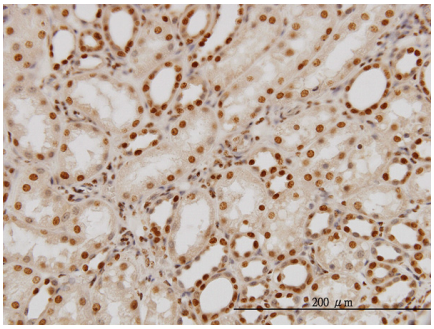
PTBP1 monoclonal antibody (M01), clone 3H8 Western Blot analysis of PTBP1 expression in A-431 ((Cat # AT3478a)



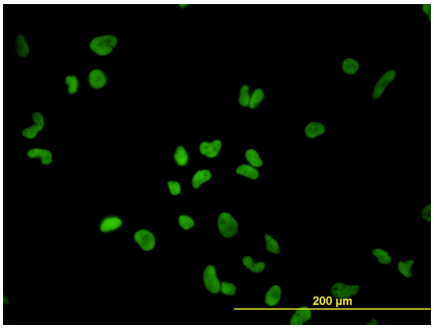
Western Blot analysis of PTBP1 expression in transfected 293T cell line by PTBP1 monoclonal antibody (M01), clone 3H8.

Lane 1: PTBP1 transfected lysate(59.6 KDa).
Lane 2: Non-transfected lysate.

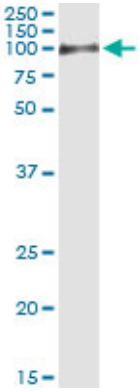
Immunoperoxidase of monoclonal antibody to PTBP1 on formalin-fixed paraffin-embedded human kidney.



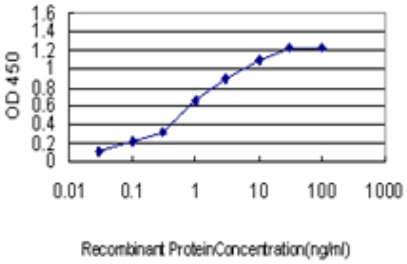
[antibody concentration 3 ug/ml]



Immunofluorescence of monoclonal antibody to PTBP1 on HeLa cell. [antibody concentration 10 ug/ml]



Immunoprecipitation of PTBP1 transfected lysate using anti-PTBP1 monoclonal antibody and Protein A Magnetic Bead (U0007), and immunoblotted with PTBP1 MaxPab rabbit polyclonal antibody.



Detection limit for recombinant GST tagged PTBP1 is approximately 0.1ng/ml as a capture antibody.