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PCBP1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18827c

Product Information

Application	WB, E
Primary Accession	Q15365
Other Accession	O19048, P60335, Q5E9A3, NP_006187.2
Reactivity	Human, Mouse
Predicted	Bovine, Mouse, Rabbit, Rat, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39472
Calculated MW	37498
Antigen Region	188-217

Additional Information

Gene ID	5093
Other Names	Poly(rC)-binding protein 1, Alpha-CP1, Heterogeneous nuclear ribonucleoprotein E1, hnRNP E1, Nucleic acid-binding protein SUB23, PCBP1
Target/Specificity	This PCBP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 188-217 amino acids from the Central region of human PCBP1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PCBP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PCBP1 {ECO:0000303|PubMed:7607214, ECO:0000312|HGNC:HGNC:8647}
Function	Single-stranded nucleic acid binding protein that binds preferentially to oligo dC (PubMed:15731341, PubMed:7556077, PubMed:7607214,

	PubMed:8152927). Together with PCBP2, required for erythropoiesis, possibly by regulating mRNA splicing (By similarity).
Cellular Location	Nucleus. Cytoplasm. Note=Loosely bound in the nucleus (PubMed:7607214). May shuttle between the nucleus and the cytoplasm (PubMed:7607214).
Tissue Location	Abundantly expressed in skeletal muscle, thymus and peripheral blood leukocytes while a lower expression is observed in prostate, spleen, testis, ovary, small intestine, heart, liver, adrenal and thyroid glands.

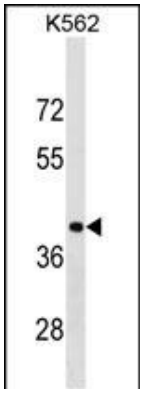
Background

This intronless gene is thought to have been generated by retrotransposition of a fully processed PCBP-2 mRNA. This gene and PCBP-2 have paralogues (PCBP3 and PCBP4) which are thought to have arisen as a result of duplication events of entire genes. The protein encoded by this gene appears to be multifunctional. It along with PCBP-2 and hnRNPK corresponds to the major cellular poly(rC)-binding protein. It contains three K-homologous (KH) domains which may be involved in RNA binding. This encoded protein together with PCBP-2 also functions as translational coactivators of poliovirus RNA via a sequence-specific interaction with stem-loop IV of the IRES and promote poliovirus RNA replication by binding to its 5'-terminal cloverleaf structure. It has also been implicated in translational control of the 15-lipoxygenase mRNA, human Papillomavirus type 16 L2 mRNA, and hepatitis A virus RNA. The encoded protein is also suggested to play a part in formation of a sequence-specific alpha-globin mRNP complex which is associated with alpha-globin mRNA stability.

References

Cloke, B., et al. Endocrinology 151(8):3954-3964(2010)
Wang, H., et al. Cancer Cell 18(1):52-62(2010)
Zhang, T., et al. Mol. Cancer 9, 72 (2010) :
Waggoner, S.A., et al. J. Biol. Chem. 284(14):9039-9049(2009)
Huo, L.R., et al. Biochim. Biophys. Acta 1784(11):1524-1533(2008)

Images



PCBP1 Antibody (Center)(Cat. #AP18827c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the PCBP1 antibody detected the PCBP1 protein (arrow).

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