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PCBP1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5581

Product Information

Application	WB
Primary Accession	Q15365
Other Accession	Q5E9A3, P60335, O19048
Reactivity	Human
Predicted	Human, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37498
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	5093
Antigen Region	188-217
Other Names	Poly(rC)-binding protein 1, Alpha-CP1, Heterogeneous nuclear ribonucleoprotein E1, hnRNP E1, Nucleic acid-binding protein SUB23, PCBP1
Dilution	WB~~1:1000
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.
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

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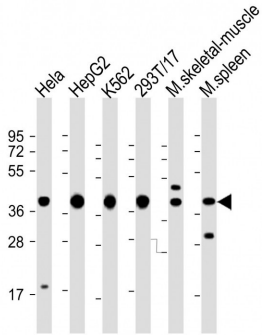
Zhang, T., et al. Mol. Cancer 9, 72 (2010) :
Waggoner, S.A., et al. J. Biol. Chem. 284(14):9039-9049(2009)
Huo, L.R., et al. Biochim. Biophys. Acta 1784(11):1524-1533(2008)

Images



All lanes : Anti-PCBP1 Antibody (Center) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lane 3: K562 whole cell lysate Lane 4: 293T/17 whole cell lysate Lane 5: mouse skeletal muscle lysate Lane 6: mouse spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.