

### **PCBP1 Antibody (Center)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP18827c

### Specification

# **PCBP1** Antibody (Center) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB,E <u>O15365</u> <u>O19048</u>, <u>P60335</u>, <u>O5E9A3</u>, <u>NP\_006187.2</u> Human, Mouse Bovine, Rabbit Rabbit Polyclonal Rabbit IgG 37498 188-217

## PCBP1 Antibody (Center) - 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.

# **PCBP1** Antibody (Center) - 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:<u>15731341</u>, PubMed:<u>7556077</u>, PubMed:<u>7607214</u>, PubMed:<u>8152927</u>). 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.

## PCBP1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## PCBP1 Antibody (Center) - 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).

# PCBP1 Antibody (Center) - 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.

## PCBP1 Antibody (Center) - 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)