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PCBP2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57710

Specification

PCBP2 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q15366
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**39 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human PCBP2**
Epitope Specificity	**1-100/365**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Nucleus. Cytoplasm. Loosely bound in the nucleus. May shuttle between the nucleus and the cytoplasm.**
SIMILARITY	**Contains 3 KH domains.**
SUBUNIT	**Identified in a mRNP complex, at least composed of DHX9,DDX3X, ELAVL1, HNRNPU, IGF2BP1, ILF3, PABPC1, PCBP2, PTBP2, STAU1,STAU2, SYNCRIP and YBX1. Interacts with IFIH1 and RNF135. Interacts with MAVS (via C-terminus) and ITCH (via WW domains).**
Post-translational modifications	**Phosphorylated. The non-phosphorylated form(s) exhibited the strongest poly(rC)-binding activity.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions

The protein encoded by this gene appears to be multifunctional. Along with PCBP-1 and hnRNPK, it is one of the major cellular poly(rC)-binding proteins. The encoded protein contains three K-homologous (KH) domains which may be involved in RNA binding. Together with PCBP-1, this protein also functions as a translational coactivator of poliovirus RNA via a sequence-specific interaction with stem-loop IV of the IRES, promoting 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. This multiexon structural mRNA is thought to be retrotransposed to generate PCBP-1, an intronless gene with functions similar to that of PCBP2. This gene and PCBP-1 have paralogous genes (PCBP3 and PCBP4) which

are thought to have arisen as a result of duplication events of entire genes. Thsi gene also has two processed pseudogenes (PCBP2P1 and PCBP2P2). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

PCBP2 Polyclonal Antibody - Additional Information

Gene ID 5094

Other Names
Poly(rC)-binding protein 2, Alpha-CP2, Heterogeneous nuclear ribonucleoprotein E2, hnRNP E2, PCBP2

Target/Specificity
Detected in all tissues examined.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

PCBP2 Polyclonal Antibody - Protein Information

Name PCBP2 {ECO:0000303|PubMed:7607214, ECO:0000312|HGNC:HGNC:8648}

Function
Single-stranded nucleic acid binding protein that binds preferentially to oligo dC (PubMed:12414943, PubMed:7607214). Major cellular poly(rC)-binding protein (PubMed:12414943). Also binds poly(rU) (PubMed:12414943). Acts as a negative regulator of antiviral signaling (PubMed:19881509, PubMed:35322803). Negatively regulates cellular antiviral responses mediated by MAVS signaling (PubMed:19881509). It acts as an adapter between MAVS and the E3 ubiquitin ligase ITCH, therefore triggering MAVS ubiquitination and degradation (PubMed:19881509). Negativeley regulates the cGAS-STING pathway via interaction with CGAS, preventing the formation of liquid- like droplets in which CGAS is activated (PubMed:35322803). Together with PCBP1, 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).

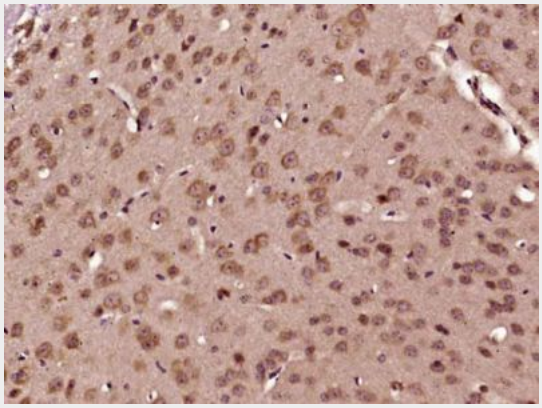
Tissue Location
Detected in all tissues examined.

PCBP2 Polyclonal Antibody - 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
- Cell Culture

PCBP2 Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PCBP2) Polyclonal Antibody, Unconjugated (bs-19908R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.