

Rabbit PCBP1 Polyclonal Antibody | anti-PCBP1 antibody

Anti-PCBP1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125668	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PCBP1; Polyclonal Antibody; Anti-PCBP1 Antibody; Pcbp1; Poly(rC-binding protein 1; Alpha-CP1; Heterogeneous nuclear ribonucleoprotein E1; hnRNP E1; poly(rC) binding protein 1; anti-PCBP1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for PCBP1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Applicable Applications for anti-PCBP1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human PCBP1 recombinant protein (Position: P152-K268).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of RH35 cells using anti-PCBP1 antibody (AAA125668). Overlay histogram showing RH35 cells stained with AAA125668 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PCBP1 Antibody (AAA125668, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of RAW264.7 cells using anti-PCBP1 antibody (AAA125668). Overlay histogram showing RAW264.7 cells stained with AAA125668 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PCBP1 Antibody (AAA125668, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of CACO-2 cells using anti-PCBP1 antibody (AAA125668). Overlay histogram showing CACO-2 cells stained with AAA125668 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PCBP1 Antibody (AAA125668, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of PCBP1 using anti-PCBP1 antibody (AAA125668). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50µg of sample under reducing conditions. Lane 1: human HELA whole cell lysates. Lane 2: human HEPG2 whole cell lysates. Lane 3: mouse NIH/3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PCBP1 antigen affinity purified polyclonal antibody (Catalog # AAA125668) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PCBP1 at approximately 40KD. The expected band size for PCBP1 is at 40KD.

ADDITIONAL INFORMATION

Related Product Information for anti-PCBP1 antibody

Poly(rC)-binding protein 1 is a protein that in humans is encoded by the PCBP1 gene. 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 hnRNP K 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

1. Chkheidze, A. N., Liebhauer, S. A. A novel set of nuclear localization signals determine distributions of the alpha-CP RNA-binding proteins. *Molec. Cell. Biol.* 23: 8405-8415, 2003.
2. Hahm, K., Kim, G., Turck, C. W., Smale, S. T. Isolation of a murine gene encoding a nucleic acid-binding protein with homology to hnRNP K. *Nucleic Acids Res.* 21: 3894 only, 1993.
3. Kosturko, L. D., Maggipinto, M. J., Korza, G., Lee, J. W., Carson, J. H., Barbarese, E. Heterogeneous nuclear ribonucleoprotein (hnRNP) E1 binds to hnRNP A2 and inhibits translation of A2 response element mRNAs. *Molec. Biol. Cell* 17: 3521-3533, 2006

NCBI AND UNIPROT INFORMATION

NCBI GI #	222352151
NCBI GeneID	5093
NCBI Accession #	NP_006187.2
NCBI GenBank Nucleotide #	NM_006196.3
UniProt Accession #	Q15365 ; Q13157 ; Q14975
Molecular Weight	37,498 Da
NCBI Official Full Name	poly(rC)-binding protein 1
NCBI Official Synonym Full Names	poly(rC) binding protein 1
NCBI Official Symbol	PCBP1
NCBI Official Synonym Symbols	HNRPX; HNRPE1; hnRNP-X; HEL-S-85; hnRNP-E1
NCBI Protein Information	poly(rC)-binding protein 1; poly(rC)-binding protein 1; alpha-CP1; epididymis secretory protein Li 85; heterogeneous nuclear ribonucleoprotein E1; heterogenous nuclear ribonucleoprotein E1; heterogenous nuclear ribonucleoprotein X; nucleic acid-binding pr

UniProt Protein Name	Poly(rC)-binding protein 1
UniProt Gene Name	PCBP1
UniProt Synonym Gene Names	hnRNP E1
UniProt Entry Name	PCBP1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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