

**#4992** Store at -20°C

# PABP1 Antibody

100 µl  
 (10 western blots)



**Orders** ■ 877-616-CELL (2355)  
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**Support** ■ 877-678-TECH (8324)  
 info@cellsignal.com  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

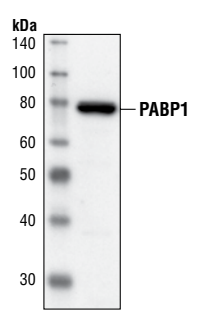
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P Endogenous	H, M, R, Mk, (B, X, Z)	71 kDa	Rabbit**

**Background:** Poly(A)-binding protein 1 (PABP1) associates with the 3' poly(A) tail of mRNA and also eIF4F (1,2). eIF4F is a complex whose functions include the recognition of the mRNA 5' cap structure (eIF4E), delivery of an RNA helicase to the 5' region (eIF4A), bridging of the mRNA and the ribosome (eIF4G), and circularization of the mRNA via interaction between eIF4G and the poly(A) binding protein (PABP). PABP1 has been shown to have multiple functions including translation initiation, mRNA stabilization, and mRNA turnover (3,4). Phosphorylation of PABP has been shown to enhance RNA binding in eukaryotes, and PABP1 has been shown to shuttle between the nucleus and cytoplasm (5,6). PABP1 is methylated on Arg455 and Arg460 by the CARM1 protein methyltransferase (7,8); however, the function of this methylation has yet to be determined.

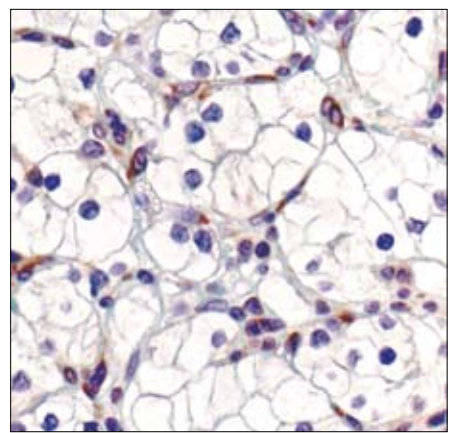
**Specificity/Sensitivity:** PABP1 Antibody detects endogenous levels of total PABP1 and PABP3 proteins.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids at the amino-terminus of human PABP1. Antibodies are purified by protein A and peptide affinity chromatography.

- Background References:**
- (1) Sachs, A. B. et al. (1986) *Cell* 45, 827-835.
  - (2) Piron, M. et al. (1998) *EMBO J.* 17, 5811-5821.
  - (3) Caponigro, G. and Parker, R. (1995) *Genes Dev.* 9, 2421-2432.
  - (4) Sachs, A.B. and Davis, R.W. (1989) *Cell* 58, 857-867.
  - (5) Le, H. et al. (2000) *J. Biol. Chem.* 275, 17452-17462.
  - (6) Afonina, E. et al. (1998) *J. Biol. Chem.* 273, 13015-13021.
  - (7) Lee, J. and Bedford, M.T. (2002) *EMBO Rep* 3, 268-73.
  - (8) Yadav, N. et al. (2003) *Proc Natl Acad Sci U S A* 100, 6464-8.



Western blot analysis of extracts from HT-29 cells, using PABP1 Antibody.



Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma, using PABP1 Antibody.

**Entrez-Gene ID** #26986  
**Swiss-Prot Acc.** #P11940

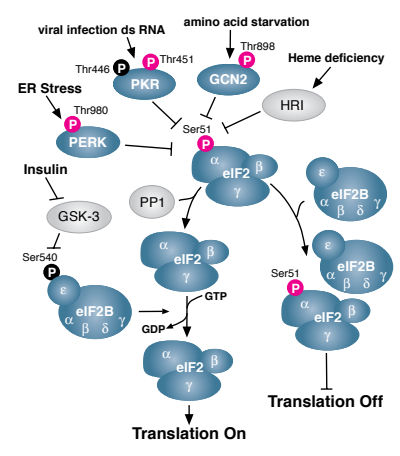
**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**  
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**  
 Western blotting 1:1000  
 Immunohistochemistry (Paraffin) 1:50  
 Unmasking buffer: Citrate  
 Antibody diluent: TBST-5%NGS

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

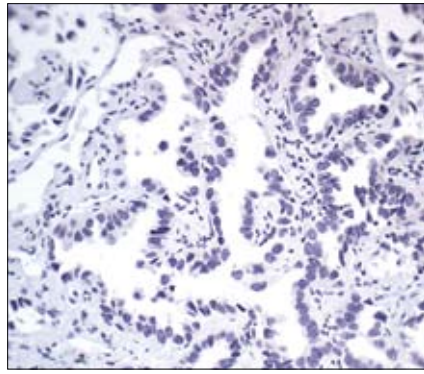
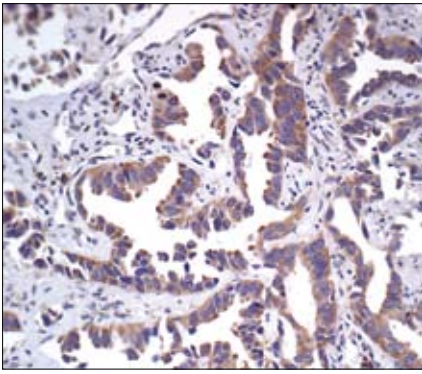
**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**



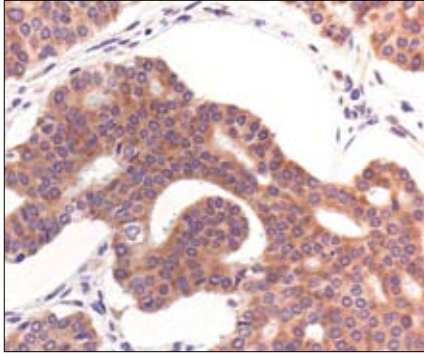
**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

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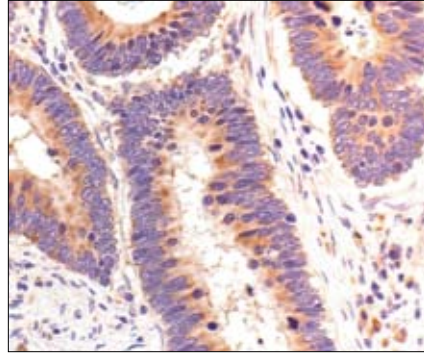
**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



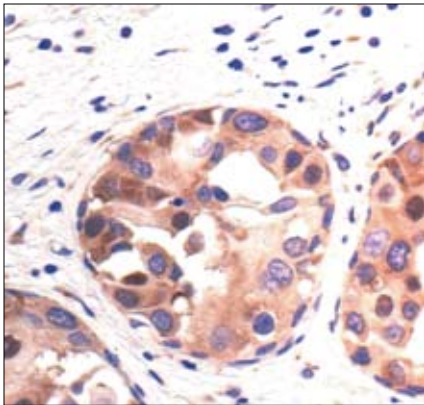
*Immunohistochemical analysis of paraffin-embedded human lung carcinoma, using PABP1 Antibody in the presence of control peptide (left) or antigen-specific peptide (right).*



*Immunohistochemical analysis of paraffin-embedded human prostate carcinoma, using PABP1 Antibody.*



*Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using PABP1 Antibody.*



*Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using PABP1 Antibody.*