

SLBP Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Dg	Endogenous	40	Rabbit	#Q14493	7884

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

SLBP Antibody recognizes endogenous levels of total SLBP protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg160 of human SLBP protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Stem-loop binding protein (SLBP) is the mammalian orthologue of *Xenopus* SLBP1, a post-transcriptional regulator of histone mRNA. SLBP binds the conserved stem-loop structure at the 3' end of replication-dependent histone mRNAs. SLBP binding aids in the 3' end processing of histone pre-mRNA in association with U7 snRNP and the zinc finger protein hZFP100 (1,2), as well as translation and transport of histone mRNA (3).

The expression of replication-dependent histone genes peaks during S phase of the cell cycle. Mammalian SLBP is also cell cycle regulated in most somatic cells, but not in mouse oocytes or embryos, indicating a potential role for SLBP in chromatin organization and remodeling (4).

Phosphorylation of SLBP at Thr61 by CDK1 regulates SLBP stability by targeting the protein for degradation upon completion of DNA synthesis (5). SLBP association with histone mRNA maintains its stability, and is regulated by the peptidyl-prolyl isomerase, Pin1, and PP2A phosphatase (6,7).

Background References

1. Dominski, Z. et al. (2002) *Genes Dev* 16, 58-71.
2. Dominski, Z. et al. (2001) *Mol Cell Biol* 21, 2008-17.
3. Sánchez, R. and Marzluff, W.F. (2002) *Mol Cell Biol* 22, 7093-104.
4. Allard, P. et al. (2002) *J Cell Sci* 115, 4577-86.
5. Koseoglu, M.M. et al. (2008) *Mol Cell Biol* 28, 4469-79.
6. Zhang, M. et al. (2012) *Biochemistry* 51, 3215-31.
7. Krishnan, N. et al. (2012) *Mol Cell Biol* 32, 4306-22.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Dg:** Dog

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