

**Anti-SSBP1 Antibody**  
**Rabbit polyclonal antibody to SSBP1**  
**Catalog # AP59708****Specification**

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**Anti-SSBP1 Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">Q04837</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17260

**Anti-SSBP1 Antibody - Additional Information****Gene ID** 6742**Other Names**

SSBP; Single-stranded DNA-binding protein mitochondrial; Mt-SSB; MtSSB; PWP1-interacting protein 17

**Target/Specificity**

Recognizes endogenous levels of SSBP1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**Anti-SSBP1 Antibody - Protein Information****Name** SSBP1**Synonyms** SSBP**Function**

Binds preferentially and cooperatively to pyrimidine rich single-stranded DNA (ss-DNA)  
(PubMed:<a href="http://www.uniprot.org/citations/21953457" target="\_blank">21953457</a>,  
PubMed:<a href="http://www.uniprot.org/citations/23290262" target="\_blank">23290262</a>,  
PubMed:<a href="http://www.uniprot.org/citations/31550240" target="\_blank">31550240</a>).  
In vitro, required to maintain the copy number of mitochondrial DNA (mtDNA) and plays a crucial

role during mtDNA replication by stimulating the activity of the replisome components POLG and TWNK at the replication fork (PubMed:<a href="http://www.uniprot.org/citations/12975372" target="\_blank">12975372</a>, PubMed:<a href="http://www.uniprot.org/citations/15167897" target="\_blank">15167897</a>, PubMed:<a href="http://www.uniprot.org/citations/21953457" target="\_blank">21953457</a>, PubMed:<a href="http://www.uniprot.org/citations/26446790" target="\_blank">26446790</a>, PubMed:<a href="http://www.uniprot.org/citations/31550240" target="\_blank">31550240</a>). Promotes the activity of the gamma complex polymerase POLG, largely by organizing the template DNA and eliminating secondary structures to favor ss-DNA conformations that facilitate POLG activity (PubMed:<a href="http://www.uniprot.org/citations/21953457" target="\_blank">21953457</a>, PubMed:<a href="http://www.uniprot.org/citations/26446790" target="\_blank">26446790</a>, PubMed:<a href="http://www.uniprot.org/citations/31550240" target="\_blank">31550240</a>). In addition it is able to promote the 5'-3' unwinding activity of the mtDNA helicase TWNK (PubMed:<a href="http://www.uniprot.org/citations/12975372" target="\_blank">12975372</a>). May also function in mtDNA repair (PubMed:<a href="http://www.uniprot.org/citations/23290262" target="\_blank">23290262</a>).

### Cellular Location

Mitochondrion Mitochondrion matrix, mitochondrion nucleoid

### Tissue Location

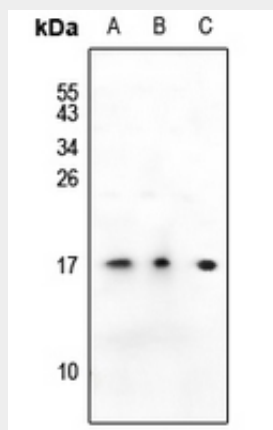
Expressed in retinal ganglion cells, photoreceptors, pigmented epithelium and fibroblasts (at protein level).

### Anti-SSBP1 Antibody - Protocols

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

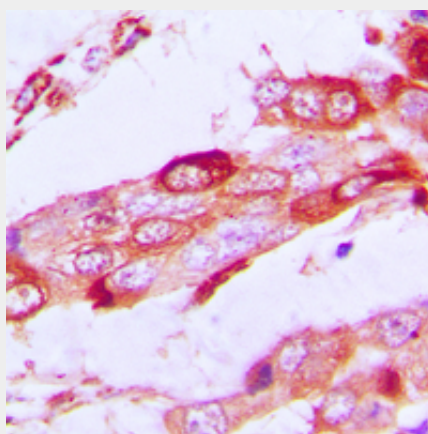
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-SSBP1 Antibody - Images

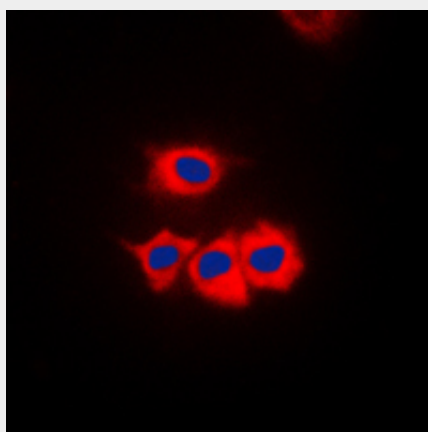


Western blot analysis of SSBP1 expression in K562 (A), HEK293T (B), A2780 (C) whole cell

lysates.



Immunohistochemical analysis of SSBP1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SSBP1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-SSBP1 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SSBP1. The exact sequence is proprietary.