

# MtSSB Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50738

## Product Information

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

## Additional Information

Gene ID	6742
Other Names	Single-stranded DNA-binding protein, mitochondrial, Mt-SSB, MtSSB, PWP1-interacting protein 17, SSBP1, SSBP
Dilution	WB~~1:1000 IF~~1:100 IHC~~1:50-100
Format	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20°C

## Protein Information

Name	SSBP1
Synonyms	SSBP
Function	<p>Binds preferentially and cooperatively to pyrimidine rich single-stranded DNA (ss-DNA) (PubMed:<a href="#">21953457</a>, PubMed:<a href="#">23290262</a>, PubMed:<a href="#">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="#">12975372</a>, PubMed:<a href="#">15167897</a>, PubMed:<a href="#">21953457</a>, PubMed:<a href="#">26446790</a>, PubMed:<a href="#">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="#">21953457</a>, PubMed:<a href="#">26446790</a>, PubMed:<a href="#">31550240</a>). In addition it is able to promote the 5'-3' unwinding activity of the mtDNA helicase TWNK (PubMed:<a href="#">12975372</a>). May also function in mtDNA repair (PubMed:<a href="#">23290262</a>).</p>
Cellular Location	Mitochondrion Mitochondrion matrix, mitochondrion nucleoid

## Tissue Location

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

## Background

This protein binds preferentially and cooperatively to ss-DNA. Probably involved in mitochondrial DNA replication. Associates with mitochondrial DNA.

## References

Tiranti V.,et al.Gene 126:219-225(1993).

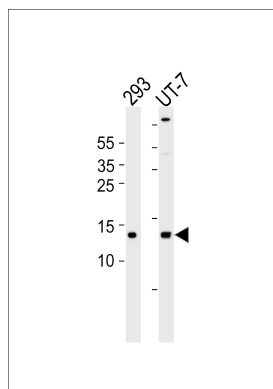
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Xu G.,et al.Proc. Natl. Acad. Sci. U.S.A. 106:19310-19315(2009).

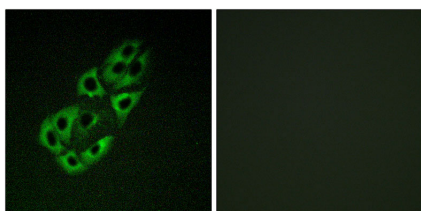
Matsuoka S.,et al.Science 316:1160-1166(2007).

Bogenhagen D.F.,et al.J. Biol. Chem. 283:3665-3675(2008).

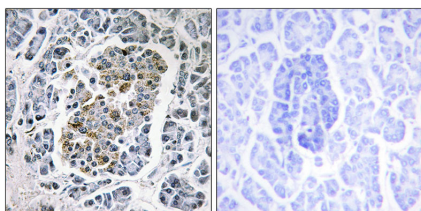
## Images



Western blot analysis of lysates from 293,UT-7 cell line (from left to right),using MtSSB Antibody(AP50738). AP50738 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.



Immunofluorescence analysis of A549 cells, using MtSSB antibody.



Immunohistochemistry analysis of paraffin-embedded human pancreas tissue using MtSSB antibody.

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