

MtSSB Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50738**Specification**

MtSSB Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	Q04837
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17 KDa
Antigen Region	86-115

MtSSB Antibody - Additional Information**Gene ID** 6742**Other Names**

Single-stranded DNA-binding protein, mitochondrial, Mt-SSB, MtSSB, PWP1-interacting protein 17, SSBP1, SSBP

DilutionWB~~1:1000
IHC~~1:50-100
IF~~1:100**Format**Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.**Storage Conditions**

-20°C

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

Binds preferentially and cooperatively to pyrimidine rich single-stranded DNA (ss-DNA) (PubMed:21953457, PubMed:23290262, PubMed:31550240). 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:12975372).

target="_blank">12975372, PubMed:15167897, PubMed:21953457, PubMed:26446790, PubMed:31550240). 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:21953457, PubMed:26446790, PubMed:31550240). In addition it is able to promote the 5'-3' unwinding activity of the mtDNA helicase TWNK (PubMed:12975372). May also function in mtDNA repair (PubMed:23290262).

Cellular Location

Mitochondrion Mitochondrion matrix, mitochondrion nucleoid

Tissue Location

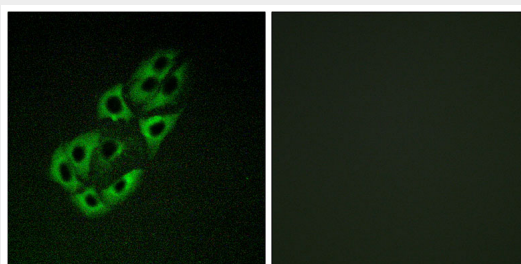
Expressed in retinal ganglion cells, photoreceptors, pigmented epithelium and fibroblasts (at protein level).

MtSSB Antibody - Protocols

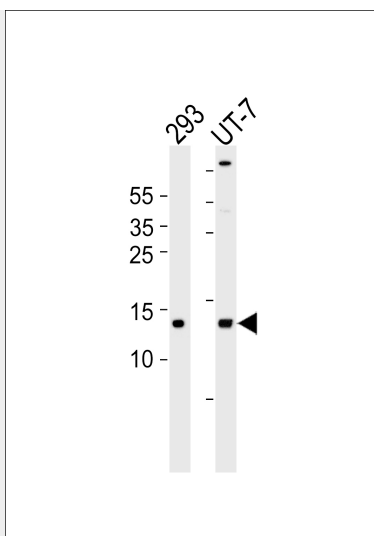
Provided below are standard protocols that you may find useful for product applications.

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

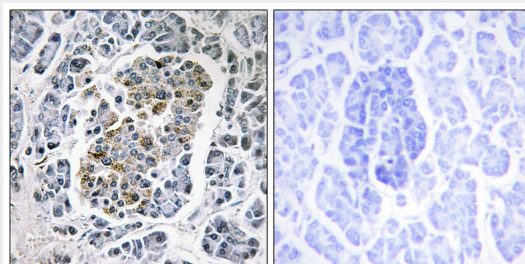
MtSSB Antibody - Images



Immunofluorescence analysis of A549 cells, using MtSSB antibody.



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.



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

MtSSB Antibody - Background

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

MtSSB Antibody - References

- Tiranti V.,et al.Gene 126:219-225(1993).
- Honore B.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
- 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).