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MtSSB Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50738

Product Information

Application	WB, IF, IHC
Primary Accession	Q04837
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 Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

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, 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).

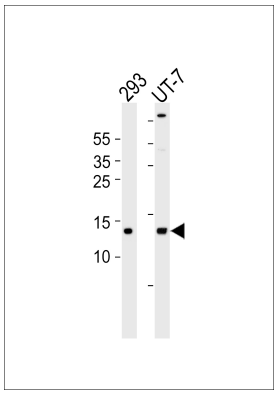
Background

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

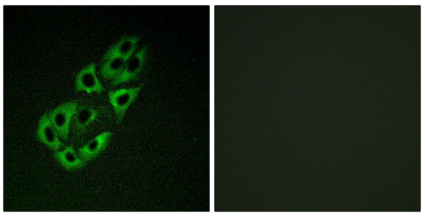
References

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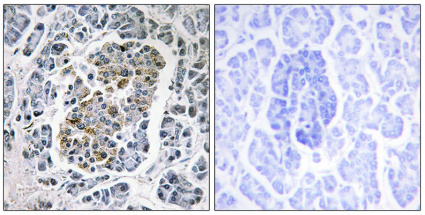
Images



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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