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Anti-SSBP1 Antibody

Catalog # AP59708

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q04837
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17260

Additional Information

Gene ID	6742
Other Names	SSBP; Single-stranded DNA-binding protein mitochondrial; Mt-SSB; MtSSB; PWP1-interacting protein 17
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SSBP1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

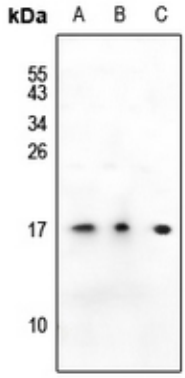
Protein Information

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

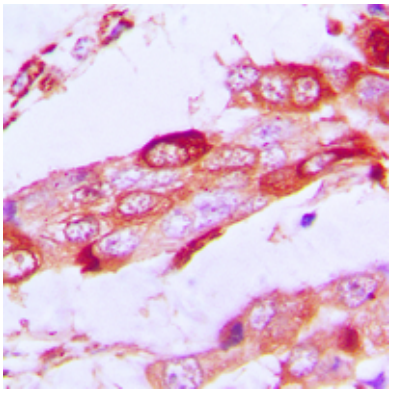
(PubMed:23290262).

Cellular Location	Mitochondrion Mitochondrion matrix, mitochondrion nucleoid
Tissue Location	Expressed in retinal ganglion cells, photoreceptors, pigmented epithelium and fibroblasts (at protein level).

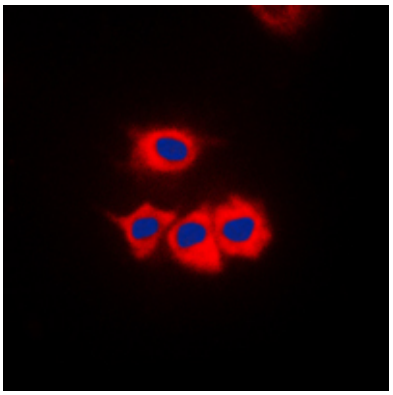
Images



Western blot analysis of SSBP1 expression in K562 (A), HEK293T (B), A2780 (C) whole cell lysates. (Predicted band size: 17 kD; Observed band size: 17 kD)

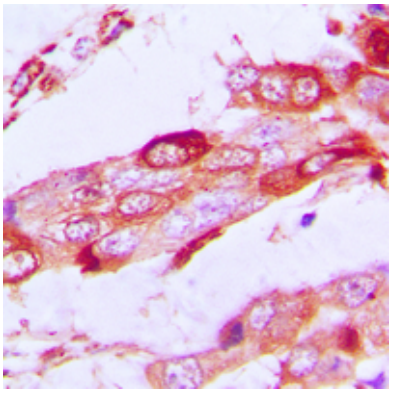


Immunohistochemical analysis of SSBP1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected 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).

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.



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