

Anti-SSBP1 Antibody

Rabbit polyclonal antibody to SSBP1 Catalog # AP59708

Product Information

Application WB, IF/IC, IHC
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)

IF/IC~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 -

1/500)

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

Protein Information

Name SSBP1

Synonyms SSBP

Function Binds preferentially and cooperatively to pyrimidine rich single-stranded

DNA (ss-DNA) (PubMed:<u>21953457</u>, PubMed:<u>23290262</u>, PubMed:<u>31550240</u>). 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:<u>26446790</u>, PubMed:<u>31550240</u>). 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:<u>21953457</u>, PubMed:<u>26446790</u>, PubMed:<u>31550240</u>). 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

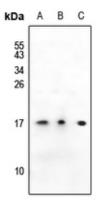
Tissue Location Expressed in retinal ganglion cells, photoreceptors, pigmented epithelium and

fibroblasts (at protein level).

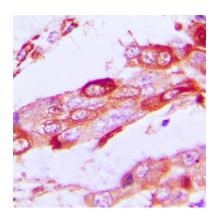
Background

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

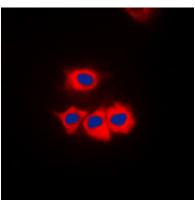
Images



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).

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