

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SSBP1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SSBP1 Met1-Glu148 Accession # Q04837
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SSBP1 (Single-Stranded DNA –Binding Protein; also MtSSB and PWP1-interacting protein 17) is a 17-18 kDa member of the mtSSB protein family. SSBP1 should not be confused with SSB1/SOSS-B1. Although SSBP1 binds single-stranded mitochondrial DNA, it is not the product of a mitochondrial gene. Rather, it is synthesized on ribosomes in the cytosol, and undergoes transport into mitochondria via an N-terminal mitochondrial localization signal. After import, the localization motif is cleaved, allowing for homotetramerization. Upon DNA replication, SSBP1 is phosphorylated by CDK, allowing for DNA duplication. Human SSBP1 is 148 amino acids (aa) in length. It contains a cleavable mitochondrial targeting sequence (aa 1-16), an SSB domain (aa 30-141), one phosphorylation (Ser79) and one acetylation site (Lys113). There is one potential isoform that shows a 25 aa substitution for aa 135-148. Full-length human SSBP1 shares 92% aa identity with mouse SSBP1.

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