

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human SIRP $\alpha$ /CD172a in direct ELISAs and Western blots. In direct ELISAs, 50-100% cross-reactivity with recombinant human (rh) SIRP $\beta$ 1 and no cross-reactivity with rhSIRP $\beta$ 2 is observed. In Western blots, approximately 10% cross-reactivity with rhSIRP $\beta$ 1 and no cross-reactivity with rhSIRP $\beta$ 2 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 602411
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human SIRP $\alpha$ /CD172a Gly27-Asn370 (predicted) Accession # P78324
<b>Conjugate</b>	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *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.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	U937 human histiocytic lymphoma cell line

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### BACKGROUND

SIRP $\alpha$  (Signal regulatory protein alpha; also SHPS1 and BIT) is a variably glycosylated 90-120 kDa member of the SIRP family of proteins. It is widely expressed, being found on neurons, microglia/macrophages, endothelium, and fibroblasts. SIRP $\alpha$  has a variety of functions, including presynaptic organization, inhibition of integrin action, and induction of myogenesis. It binds to CD47 and likely other ligands. Mature human SIRP $\alpha$  is a 477 amino acid (aa) type I transmembrane glycoprotein. It contains an extracellular region (aa 27-372) that shows one V-type Ig-like (aa 32-137) and two C2-type Ig-like domains (aa 147-347). Its cytoplasmic domain possesses two ITIMs which interact with protein tyrosine phosphatases. There is one alternative start site at Met102 plus a four aa insertion after Gln421. Over aa 27-370, human SIRP $\alpha$  shares 61% aa identity with mouse SIRP $\alpha$ .

#### PRODUCT SPECIFIC NOTICES

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