

#### DESCRIPTION

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat SIRP- $\alpha$ /CD172a in direct ELISA and Western Blot.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 772734
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant rat SIRP- $\alpha$ /CD172a Lys32-Asn373 Accession # P97710
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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	PC-12 rat adrenal pheochromocytoma 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 CD172a, Shps1 and Bit) is a variably glycosylated, 85-120 kDa member of the SIRP 'family' of proteins. It is expressed on neurons, macrophages, monocytes, granulocytes and dendritic cells. SIRP $\alpha$  is phosphorylated/activated in response to cell adhesion. This may, or may not, involve binding to known ligands CD47, SP-A and SP-D. Following phosphorylation, SIRP $\alpha$  binds to SHP-1 and -2, resulting in the negative regulation of immune system activity. Mature rat SIRP $\alpha$  is a 478 amino acid (aa) type I transmembrane glycoprotein. It contains a 342 aa extracellular region (aa 32-373) that possesses one V-type and two C1-type Ig-like domains. Its cytoplasmic domain possesses two ITIMs that interact with protein phosphatases. There is one potential splice variant that shows a four aa insertion after Gln424. Over aa 32-373, rat SIRP $\alpha$  shares 63% and 73% aa sequence identity with human and mouse SIRP $\alpha$ , respectively.

#### PRODUCT SPECIFIC NOTICES

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