

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat SIRP- α /CD172a in direct ELISA and Western Blot.
Source	Monoclonal Mouse IgG _{2B} Clone # 772734
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat SIRP- α /CD172a Lys32-Asn373 Accession # P97710
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	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
Flow Cytometry	0.25-1 μ g/10 ⁶ cells	PC-12 rat adrenal pheochromocytoma cell line

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

SIRP α (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 α 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 α binds to SHP-1 and -2, resulting in the negative regulation of immune system activity. Mature rat SIRP α 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 α shares 63% and 73% aa sequence identity with human and mouse SIRP α , respectively.

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