

DESCRIPTION

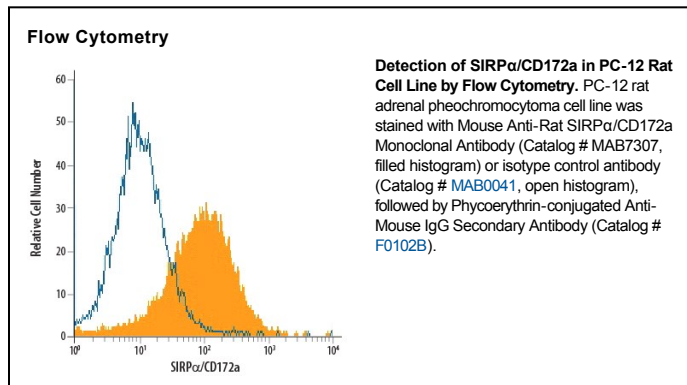
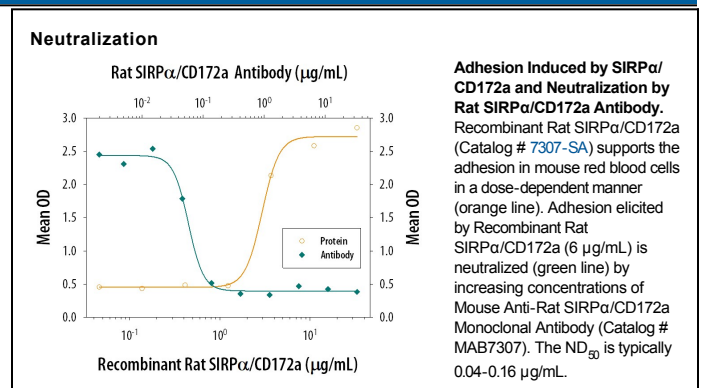
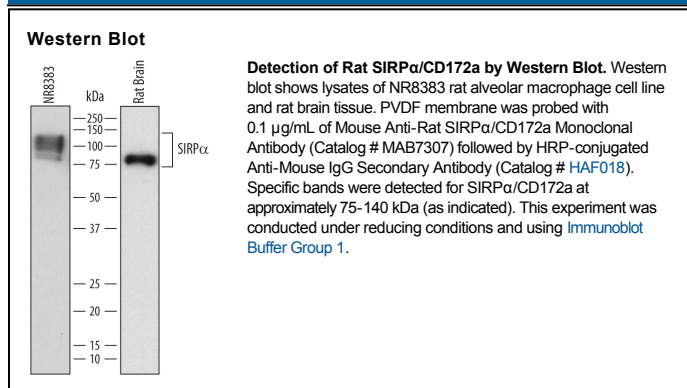
| | |
|---------------------------|---|
| Species Reactivity | Rat |
| Specificity | Detects rat SIRP- α /CD172a in direct ELISA and Western Blot. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 772734 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant rat SIRP- α /CD172a Lys32-Asn373 Accession # P97710 |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS. |

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 |
|-----------------------|---|-----------|
| Western Blot | 0.1 μ g/mL | See Below |
| Flow Cytometry | 2.5 μ g/10 ⁶ cells | See Below |
| CyTOF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |
| Neutralization | Measured by its ability to neutralize SIRP α /CD172a-induced adhesion in mouse red blood cells. The Neutralization Dose (ND ₅₀) is typically 0.04-0.16 μ g/mL in the presence of 6 μ g/mL Recombinant Rat SIRP α /CD172a. | |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|---|
| Reconstitution | Sterile PBS to a final concentration of 0.5 mg/mL. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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.