

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat SIRPα/CD172a in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat SIRPα/CD172a Lys32-Asn373 Accession # P97710
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

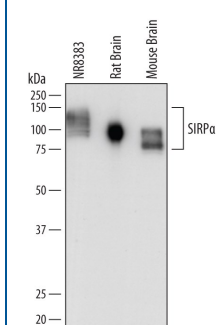
APPLICATIONS

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	0.2 µg/mL	See Below
Simple Western	2.5 µg/mL	Mouse brain and rat brain

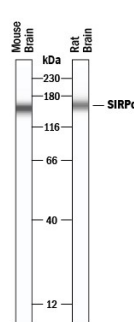
DATA

Western Blot



Detection of Mouse and Rat SIRPα/CD172a by Western Blot. Western blot shows lysates of NR8383 rat alveolar macrophage cell line, rat brain tissue, and mouse brain tissue. PVDF membrane was probed with 0.2 µg/mL of Sheep Anti-Mouse/Rat SIRPα/CD172a Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7307) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for SIRPα/CD172a at approximately 75-140 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immoblot Buffer Group 1](#).

Simple Western



Detection of Mouse and rat SIRPα/CD172a by Simple Western™. Simple Western lane view shows lysates of mouse brain and rat brain, loaded at 0.2 mg/mL. A specific band was detected for SIRPα/CD172a at approximately 164 kDa (as indicated) using 2.5 µg/mL of Sheep Anti-Mouse/Rat SIRPα/CD172a Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7307) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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

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