

DESCRIPTION

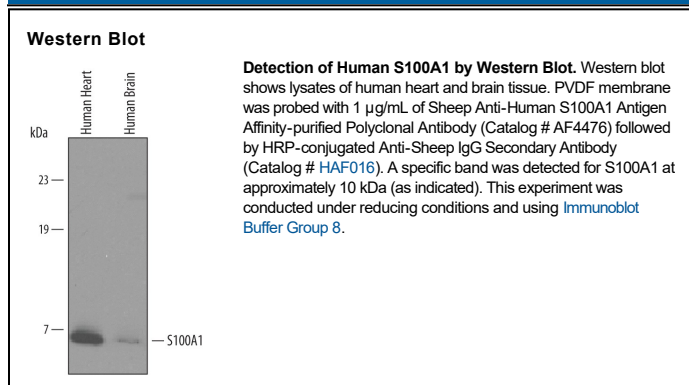
Species Reactivity	Human
Specificity	Detects human S100A1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) S100B, rhS100P, and rhS100A2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human S100A1 Met1-Ser94 Accession # P23297
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	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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

S100A1 (also S100 alpha) is a 10 kDa member of the S100 family, EF-hand superfamily of Ca-binding proteins. It is expressed by striated muscle, endothelium and chondrocytes. Intracellularly, S100A1 regulates cytosolic Ca levels, and is part of the Hsp70/Hsp90 multichaperone complex that protects against protein denaturation. Extracellularly, it exists as both a homodimer and heterodimer with S100B, S100A4 and S100P, may bind to RAGE, and blocks apoptosis. Human S100A1 is 94 amino acids (aa) in length. It contains two EF-hand motifs (aa 13-48 and 50-85) and a Ca-dependent protein interaction site (aa 89-91). There may be one alternate start site 53 aa upstream of the standard start site. Full-length human S100A1 shares 93% and 98% aa identity with mouse and canine S100A1, respectively.