

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human S100P in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) S100A10 or rhS100B is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 357517
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human S100P Met1-Lys95 Accession # P25815
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 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
Immunocytochemistry	8-25 µg/mL	See Below
Knockout Validated	S100P is specifically detected in HT-29 human colon adenocarcinoma parental cell line but is not detectable in S100P knockout HT-29 cell line.	

DATA

<p>Western Blot</p>	<p>Detection of Human S100P by Western Blot. Western blot shows lysates of HT-29 human colon adenocarcinoma parental cell line and S100P knockout HT-29 cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human S100P Monoclonal Antibody (Catalog # MAB2957) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for S100P at approximately 10 kDa (as indicated) in the parental HT-29 cell line, but is not detectable in knockout HT-29 cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p> <p>S100P in NTERA-2 Human Cell Line. S100P was detected in immersion fixed NTERA-2 human testicular embryonic carcinoma cell line using 10 µg/mL Mouse Anti-Human S100P Monoclonal Antibody (Catalog # MAB2957) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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

Human S100P is a 22 kDa, homodimeric member of the S100 family of calcium-binding proteins. The S100 family currently has more than 20 members and belongs to the EF-hand superfamily of molecules. S100P is 95 aa in length and contains short, sequential modules. There is an N-terminal α-helix, a unique EF-hand motif, an α-helix, a linker region, an α-helix, a classic EF-hand motif and a C-terminal α-helix. The EF-hand motif binds calcium, which likely alters molecular conformation. The rearranged S100P now binds ligand with the linker region. Human S100P shares 47% aa sequence identity with rat S100P.