

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	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.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 357517
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human S100P Met1-Lys95 Accession # P25815
<b>Formulation</b>	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.

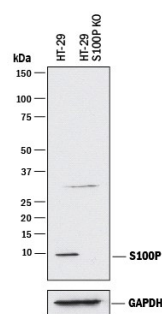
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Knockout Validated</b>	S100P is specifically detected in HT-29 human colon adenocarcinoma parental cell line but is not detectable in S100P knockout HT-29 cell line.	

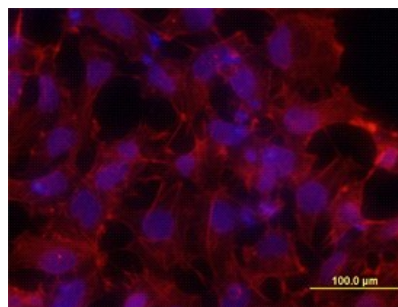
## DATA

### Western Blot



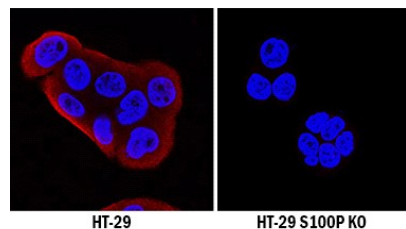
**Detection of Human S100P by Western Blot.** Western blot shows lysates of HT-29 human colon adenocarcinoma parental cell line and S100P knockout HT-29 cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human S100P Monoclonal Antibody (Catalog # MAB2957) followed by HRP-conjugated Anti-Mouse 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.

### Immunocytochemistry



**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](#).

### Knockout Validated



**S100P Specificity is Shown by Immunocytochemistry in Knockout Cell Line.** S100P was detected in immersion fixed HT-29 human colon adenocarcinoma cell line but is not detected in S100P knockout (KO) HT-29 Human Cell Line cell line using Mouse Anti-Human S100P Monoclonal Antibody (Catalog # MAB2957) at 0.1 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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  $\alpha$ -helix, a unique EF-hand motif, an  $\alpha$ -helix, a linker region, an  $\alpha$ -helix, a classic EF-hand motif and a C-terminal  $\alpha$ -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.