

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human S100A2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) S100A1, A7, A8, A10, A11, A13, rhS100B, rhS100P, recombinant mouse S100A4, A6, A9, or A16 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 674033
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human S100A2 Met1-Pro97 Accession # P29034
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.

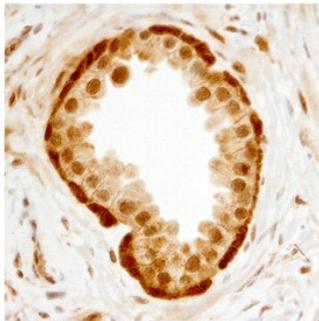
APPLICATIONS

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
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



S100A2 in Human Prostate. S100A2 was detected in immersion fixed paraffin-embedded sections of human prostate using Mouse Anti-Human S100A2 Monoclonal Antibody (Catalog # MAB48701) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei in epithelial, smooth muscle and stromal cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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

S100A2 (also S100L and CaN19) is a 10 kDa member of the S100 family, EF-hand superfamily of Ca-binding proteins. It is expressed by multiple cell types, including keratinocytes, chondrocytes, and bronchial epithelium. S100A2 regulates both Ca and Zn (in human) within cells, and increases p53 activity. It forms both noncovalent and covalent homodimers, and a homotetramer under certain conditions. Human S100A2 is 98 amino acids (aa) in length. It contains two EF-hand motifs (aa 13-48 and 51-86) plus a calcium (aa 64-75) and zinc (aa 17-22) binding site. There is one potential alternative splice form that shows a 40 aa insertion after Gly48. Full-length human S100A2 shares 89% and 85% aa identity with bovine and canine S100A2, respectively.