

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STEAP-1 in direct ELISA.
Source	Monoclonal Mouse IgG _{2A} Clone # 1057323
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STEAP-1 Met1-Trp71 Accession # Q9UHE8
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.

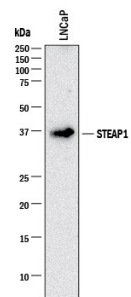
APPLICATIONS

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	2 µg/mL	LNCaP human prostate cancer cell line
Flow Cytometry	0.25 µg/10 ⁶ cells	see below

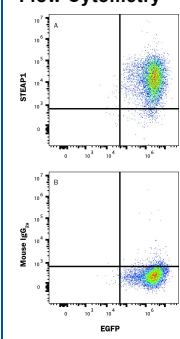
DATA

Western Blot



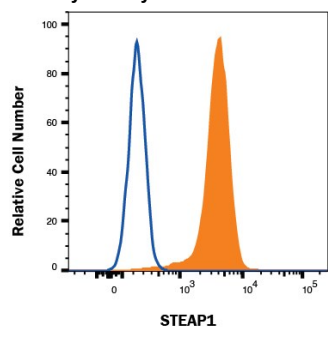
Detection of Human STEAP1 by Western Blot. Western blot shows lysates of LNCaP human prostate cancer cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human STEAP1 Monoclonal Antibody (Catalog # MAB5587) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for STEAP1 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

Flow Cytometry



Detection of STEAP1 in HEK293 transfected with Human STEAP1 and eGFP cells by Flow Cytometry. HEK293 transfected with Human STEAP1 and eGFP were stained with eGFP and either (A) Mouse Anti-Human STEAP1 Monoclonal Antibody (Catalog # MAB5587) or (B) Mouse IgG_{2A} Isotype Control (Catalog # MAB003) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry



Detection of STEAP1 in LNCaP cells by Flow Cytometry LNCaP cells were stained with Mouse Anti-Human STEAP1 Monoclonal Antibody (Catalog # MAB5587, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with saponin. View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

STEAP1 (six-transmembrane epithelial antigen of the prostate-1) is a 40 kDa protein (predicted) of the STEAP family of metalloredutases. It is expressed mainly at cell-cell junctions between prostate secretory epithelium, and up-regulated in prostate and some bladder, colon and ovarian cancers and Ewing's sarcomas. Human STEAP1 is 339 amino acids (aa) in length. It contains a ferric oxidoreductase domain (aa 119-265) that includes transmembrane sequences (# 2, 3, 4, and part of 5, out of 6 sequences). Two splice forms diverge at aa 255, terminating after aa 58 or 259. Over aa 1-71, human and mouse STEAP1 share 68% aa identity.