Human ICAP-1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6805

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ICAP-1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human ICAP-1 Met1-Tyr127 Accession # O14713
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.

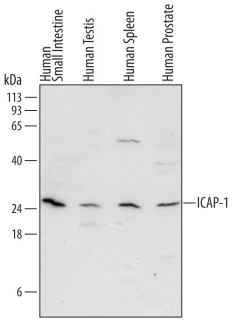
APPLICATIONS

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	2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

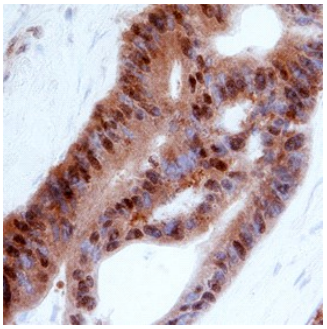
DATA

Western Blot



Detection of Human ICAP-1 by Western Blot. Western blot shows lysates of human small intestine tissue, human testis tissue, human spleen tissue, and human prostate tissue. PVDF Membrane was probed with 2 µg/mL of Sheep Anti-Human ICAP-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6805) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for ICAP-1 at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



ICAP-1 in Human Colon Cancer Tissue. ICAP-1 was detected in immersion fixed paraffin-embedded sections of human colon cancer tissue using Sheep Anti-Human ICAP-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6805) at 3 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-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei in epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.** ● 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

ICAP-1 (Integrin cytoplasmic domain-associated protein-1; also ITBP1) is a 22-27 kDa protein that specifically binds to the cytoplasmic tail of β1 integrin. It is widely expressed, and serves to negatively regulate cell migration/proliferation. In the cytosol, it has at least two functions. First, it associates with β1 integrin, promoting an inactive conformation. This has the effect of both slowing cell migration and allowing for the monitoring of ECM density. Second, it induces Delta-Notch signaling, an event that specifies the growth of only tip endothelium during angiogenesis. In the nucleus, ICAP-1 is proposed to participate in c-myc activation. Human ICAP-1 is 200 amino acids (aa) in length. It contains an NLS (aa 5-9) and one pleckstrin homology-like/PID domain (aa 58-200). Phosphorylation occurs at Thr38 and Ser41. There is one nonintegrin-binding alternative splice form that shows a deletion of aa 128-177. Over aa 1-127, human ICAP-1 shares 93% aa identity with mouse ICAP-1.

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