

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Annexin A2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 25% cross-reactivity with recombinant human (rh) Annexin A1, A7, A9, A11, and A13 is observed. No cross-reactivity with rhAnnexin A3, A4, A6, A8, or A10 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 666316
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Annexin A2 Met1-Asp339 Accession # P07355
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.

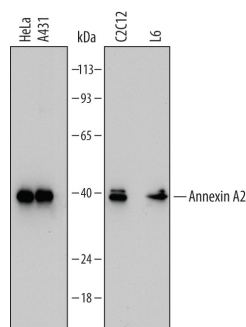
APPLICATIONS

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	0.1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Simple Western	1 µg/mL	See Below

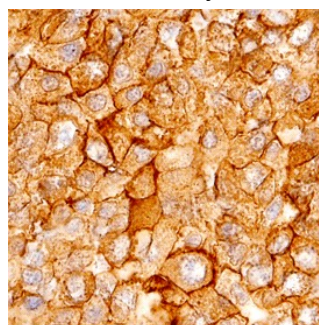
DATA

Western Blot



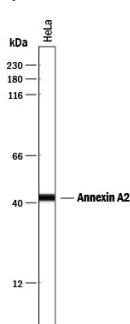
Detection of Human, Mouse, and Rat Annexin A2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, A431 human epithelial carcinoma cell line, C2C12 mouse myoblast cell line, and L6 rat myoblast cell line. PVDF Membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat Annexin A2 Monoclonal Antibody (Catalog # MAB3928) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Annexin A2 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunohistochemistry



Annexin A2 in Human Liver. Annexin A2 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human/Mouse/Rat Annexin A2 Monoclonal Antibody (Catalog # MAB3928) 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 plasma membranes and cytoplasm of hepatocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Simple Western



Detection of Human Annexin A2 by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Annexin A2 at approximately 43 kDa (as indicated) using 1 µg/mL of Mouse Anti-Human/Mouse/Rat Annexin A2 Monoclonal Antibody (Catalog # MAB3928). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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

Annexin A2 (ANXA2), also known as Annexin II and Lipocortin II (LPC2), is an approximately 40 kDa member of the Annexin family of calcium-dependent phospholipid-binding proteins that are preferentially located on the cytosolic face of the plasma membrane. Phosphorylation of Annexin A2 at Tyr23 regulates its involvement in endosomal trafficking and actin cytoskeleton rearrangement. The Annexins consist of a unique amino terminal domain followed by a homologous C-terminal core domain containing the calcium-dependent phospholipid-binding sites. The C-terminal domain is comprised of four 60-70 amino acid (aa) annexin repeats. Annexin A2 also functions as an autocrine factor to enhance osteoclast formation and bone resorption and is a major cellular substrate of the tyrosine kinase Src. Human Annexin A2 shares 97% identity with mouse and rat Annexin A2.