

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects endogenous human, mouse, and rat Annexin A2 in Western blots. In Western blots, this antibody shows no cross-reactivity with recombinant human Annexin A1, A3, A4, A5, A6, A7, A8, A9, A10, A11, or A13.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
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 as a 0.2 µm filtered solution in PBS.

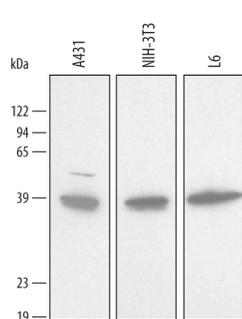
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	50 µg/mL	See Below

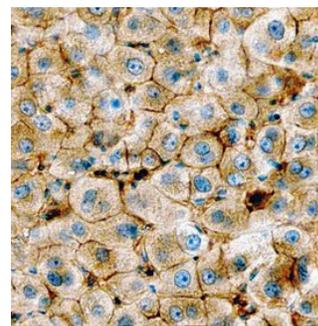
DATA

Western Blot



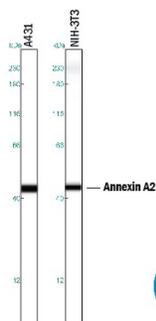
Detection of Human/Mouse/Rat Annexin A2 by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 1 µg/mL of Human/Mouse/Rat Annexin A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3928) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Annexin A2 at approximately 39 kDa (as indicated). This experiment was conducted using [Immunoblot Buffer Group 2](#).

Immunohistochemistry



Annexin A2 in Human Liver. Annexin A2 was detected in immersion fixed paraffin-embedded sections of normal human liver using Human/Mouse/Rat Annexin A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3928) 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-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membranes of hepatocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Simple Western



Detection of Human and Mouse Annexin A2 by Simple Western™. Simple Western lane view shows lysates of A431 human epithelial carcinoma cell line and NIH-3T3 mouse embryonic fibroblast cell line, loaded at 0.2 mg/mL. A specific band was detected for Annexin A2 at approximately 45 kDa (as indicated) using 50 µg/mL of Goat Anti-Human/Mouse/Rat Annexin A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3928) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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 a 38.6 kDa member of the Annexin family of proteins. The Annexins are a family of Calcium-dependent phospholipid-binding proteins that are preferentially located on the cytosolic face of the plasma membrane. The Annexin's have a molecular weight of approximately 35-40 kDa and 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) repeats, known as annexin repeats or an endonexin fold (Annexin A6 contains 8 annexin repeats). The four annexin repeats form a highly α -helical, tightly packed disc known as the annexin domain, which binds to phospholipids in the membrane in a calcium-dependent manner. Members of the annexin family play a role in cytoskeletal interactions, phospholipase inhibition, regulation of cellular growth, and intracellular signal transduction pathways. Annexin A2 was identified as an inhibitor of phospholipase A2 activity. 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 encoded by the SRC oncogene. Human Annexin A2 shares 97% identity with mouse and rat Annexin A2.