

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Caveolin-1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Caveolin-1 Ser2-Ser104 Accession # Q03135
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	0.2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	2 µg/mL	See Below

DATA

Western Blot

Detection of Human Caveolin-1 by Western Blot. Western blot shows lysates of HUVEC human umbilical vein endothelial cells, A431 human epithelial carcinoma cell line, and A549 human lung carcinoma cell line. PVDF Membrane was probed with 0.2 µg/mL of Goat Anti-Human Caveolin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5736) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). Specific bands were detected for Caveolin-1 at approximately 21 to 24 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry

Caveolin-1 in Human Liver. Caveolin-1 was detected in immersion fixed paraffin-embedded sections of human liver using Goat Anti-Human Caveolin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5736) at 10 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 endothelial cells in bile canaliculi. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western

Detection of Human Caveolin-1 by Simple Western™. Simple Western lane view shows lysates of HUVEC human umbilical vein endothelial cells and A431 human epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Caveolin-1 at approximately 29 kDa (as indicated) using 2 µg/mL of Goat Anti-Human Caveolin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5736) 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.

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

Caveolin-1 is a palmitoylated 22 kDa membrane-associated protein in caveolae which are cholesterol-rich invaginations in the plasma membrane involved in vesicular transport and the regulation of lipid rafts and signal transduction. Caveolin-1 expression is dysregulated during cancer progression and exhibits both positive and negative effects on tumor progression. The central region of Caveolin-1 (aa 105 - 125) is buried in the lipid layer, while the N- and C-terminal flanking regions are exposed to the cytoplasm and interact with many other proteins. Alternate splicing in human, mouse, and rat Caveolin-1 generates an isoform with a deletion of the N-terminal 31 residues.