

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Caveolin-3 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 682708
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Caveolin-3 Met1-Pro83 Accession # P56539
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.

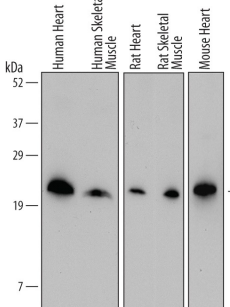
APPLICATIONS

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	0.5 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

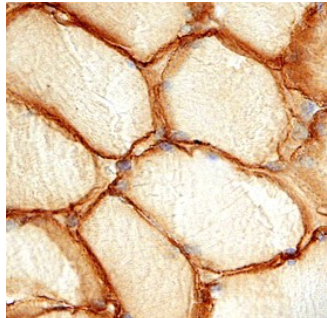
DATA

Western Blot



Detection of Human, Mouse, and Rat Caveolin-3 by Western Blot. Western blot shows lysates of human heart tissue, human skeletal muscle tissue, rat heart tissue, rat skeletal muscle tissue, and mouse heart tissue. PVDF Membrane was probed with 0.5 µg/mL of Mouse Anti-Human Caveolin-3 Monoclonal Antibody (Catalog # MAB6706) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Caveolin-3 at approximately 20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Caveolin-3 in Human Skeletal Muscle. Caveolin-3 was detected in immersion fixed paraffin-embedded sections of human skeletal muscle using Mouse Anti-Human Caveolin-3 Monoclonal Antibody (Catalog # MAB6706) 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 sarcolemma of muscle cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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

Caveolin-3 is an 18 kDa member of the Caveolin family of proteins which are major protein components of plasma membrane caveolae. It is preferentially expressed in muscle cells where it regulates the localization and activity of potassium channels and the nicotinic acetylcholine receptor. Caveolin-3 mutations are associated with several skeletal muscle defects. It contains a central membrane-embedded sequence (aa 84-104) flanked by two cytoplasmic domains (aa 1-83 and 105-151). Over aa 1-83, human Caveolin-3 shares 94% aa identity with mouse and rat Caveolin-3.