Human/Mouse/Rat Gelsolin/GSN Antibody

Monoclonal Mouse IgG_1 Clone # 893205

Catalog Number: MAB8170

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Gelsolin/GSN in ELISAs. Detects human, mouse and rat Gelsolin/GSN in Western Blots.
Source	Monoclonal Mouse IgG_1 Clone # 893205
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with human Gelsolin/GSN Met1-Ala782 Accession # P06396
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.

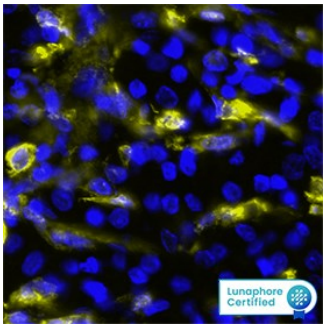
APPLICATIONS

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
Multiplex Immunofluorescence	20 µg/mL	Immersion fixed paraffin-embedded sections of human Renal Cell Carcinoma
Immunohistochemistry	8-25 µg/mL	See Below
Simple Western	5-20 µg/mL	See Below
Knockout Validated	Gelsolin/GSN is specifically detected in the parental U2OS cell line, but is not detectable in knockout U2OS cell line.	

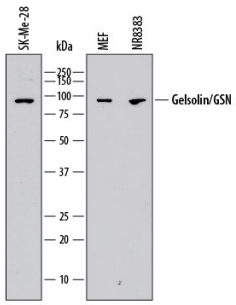
DATA

Multiplex Immunofluorescence



Detection of Gelsolin/GSN in Human Renal Cell Carcinoma via seqIF™ staining on COMET™ Gelsolin/GSN Antibody was detected in immersion fixed paraffin-embedded sections of human Renal Cell Carcinoma using Mouse Anti-Human Gelsolin/GSN, pan Monoclonal Antibody (Catalog # Catalog # MAB8170) at 20ug/mL at 37 ° Celsius for 4 minutes. Before incubation with the primary antibody, tissue underwent an all-in-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9; Epredia Catalog # TA-999-DHBH).Tissue was stained using the Alexa Fluor™ 647 Goat anti-Mouse IgG Secondary Antibody at 1:200 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR647MS) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the cytoplasm. Protocol available in COMET™ Panel Builder.

Western Blot



Detection of Human, Mouse, and Rat Gelsolin/GSN by Western Blot. Western blot shows lysates of SK-Mel-28 human malignant melanoma cell line, MEF mouse embryonic feeder cells, and NR8383 rat alveolar macrophage cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat Gelsolin/GSN Monoclonal Antibody (Catalog # MAB8170) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # Catalog # HAF018). A specific band was detected for Gelsolin/GSN at approximately 95 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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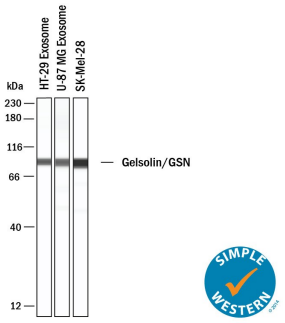
Human/Mouse/Rat Gelsolin/GSN Antibody

Monoclonal Mouse IgG_1 Clone # 893205

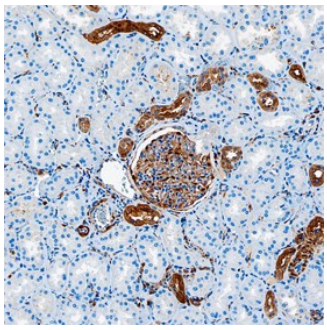
Catalog Number: MAB8170

Simple Western



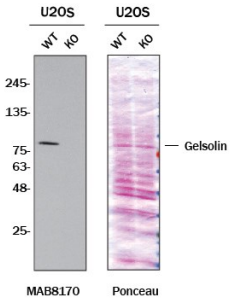
Detection of Human Gelsolin/GSN by Simple Western™. Simple Western shows lysates of Exosome Standards (HT-29) (Catalog # NBP3-11685), Exosome Standards (U-87 MG) (Catalog # NBP2-49844) and SK-Mel-28 human malignant melanoma cell line, loaded at 0.5 mg/ml. A specific band was detected for Gelsolin/GSN at approximately 90 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human/Mouse/Rat Gelsolin/GSN Monoclonal Antibody (Catalog # MAB8170). This experiment was conducted under reducing conditions and using the 12-230kDa separation system.

Immunohistochemistry



Gelsolin/GSN in Human Kidney. Gelsolin/GSN was detected in formalin fixed paraffin-embedded sections of human kidney using Mouse Anti-Human/Mouse/Rat Gelsolin/GSN Monoclonal Antibody (Catalog # MAB8170) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to glomeruli and distal convoluted tubules. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Knockout Validated



Western Blot Shows Human Gelsolin/GSN Specificity Using Knockout Cell Line. Western blot shows lysates of U2OS human osteosarcoma cell line and Gelsolin/GSN knockout U2OS cell line (KO). Nitrocellulose membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat Gelsolin/GSN Monoclonal Antibody (Catalog # MAB8170) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody. A specific band was detected for Gelsolin/GSN at approximately 80 kDa (as indicated) in the parental U2OS cell line, but is not detectable in knockout U2OS cell line. The Ponceau stained transfer of the blot is shown. This experiment was conducted under reducing conditions. Image, protocol, and testing courtesy of YCharOS Inc. See ycharos.com for additional details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
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

Gelsolin, also known as GSN, actin-depolymerizing factor/ADF, AGEL and Brevin, is a 90-95 kDa member of the villin/gelsolin family. Widely expressed, Gelsolin binds to actin and fibronectin, and is found both secreted in plasma and in cytoplasm. Cytoplasmic Gelsolin lacks 51 N-terminal amino acids (aa) present in the secreted protein. Gelsolin was identified by its ability to sever actin filaments in the presence of submicromolar calcium, and plays a role in ciliogenesis. Defects in Gelsolin cause amyloidosis type 5, a hereditary disease characterized by gelsolin amyloid deposition. Full-length human Gelsolin is 782 aa and shares 93% aa identity with mouse and rat Gelsolin.

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