

DESCRIPTION	
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human Gelsolin/GSN in ELISAs. Detects human, mouse and rat Gelsolin/GSN in Western Blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 893205
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	HEK293 human embryonic kidney cell line transfected with human Gelsolin/GSN Met1-Ala782 Accession # P06396
<b>Formulation</b>	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
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	5 µg/mL	See Below

**DATA**

**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 # 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.

**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 # 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.

**Simple Western**

**Detection of Human Gelsolin/GSN by Simple Western™.** Simple Western lane view shows lysates of SK-Mel-28 human malignant melanoma cell line, loaded at 0.5 mg/mL. A specific band was detected for Gelsolin/GSN at approximately 96 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human/Mouse/Rat Gelsolin/GSN Monoclonal Antibody (Catalog # MAB8170). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.