

**DESCRIPTION**

**Source** Mouse myeloma cell line, NS0-derived mouse Gas6 protein  
Ala46-Pro673, with a C-terminal 6-His tag  
Accession # CAA42507

**N-terminal Sequence Analysis** Ala46 & Tyr47

**Predicted Molecular Mass** 71 kDa

**SPECIFICATIONS**

**SDS-PAGE** 78-94 kDa, reducing conditions

**Activity** Measured by its ability to down regulate the expression of Axl in DU145 human prostate carcinoma cells. Mishra, A. *et al.* (2012) Mol. Cancer Res. **10**:703.  
The ED<sub>50</sub> for this effect is 20-100 ng/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 250 µg/mL in sterile PBS.

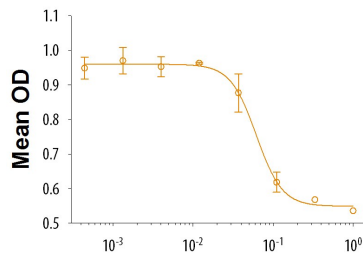
**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**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.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

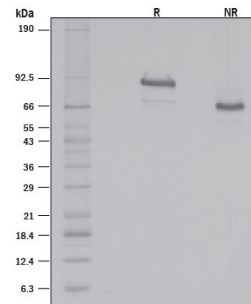
**DATA**

**Bioactivity**



Recombinant Mouse Gas6 (Catalog # 8310-GS) down regulates the expression of Axl in DU145 human prostate carcinoma cells. The ED<sub>50</sub> for this effect is 20-100 ng/mL.

**SDS-PAGE**



1 µg/lane of Recombinant Mouse Gas6 (Full Length, Catalog # 8310-GS) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by silver staining, showing R bands at 85.4 and 69.2 kDa and NR band at 64.4 kDa.

**BACKGROUND**

Gas6 (Growth Arrest Specific 6) is a secreted 75 kDa multimodular protein that is up-regulated by a wide variety of cell types in response to growth arrest. It is expressed by endothelial cells, fibroblasts, neurons, smooth muscle cells, and platelets, and it plays a role in vascular, thrombotic, atherosclerotic, inflammatory, autoimmune, renal, and cancer pathologies (1, 2). Both Gas6 and the related Protein S contain an extensively  $\gamma$ -carboxylated N-terminal Gla domain, four EGF-like repeats, and two C-terminal Laminin G-like domains. And like Protein S, Gas6 is dependent upon vitamin K for activity. Within the Gla, EGF-like, and Laminin G-like domains, mouse Gas6 shares 83%, 94%, and 41% aa sequence identity with the equivalent regions in human Gas6, rat Gas6, and mouse Protein S, respectively. Gas6 binds to and induces signaling through the receptor tyrosine kinase TAM subfamily, which includes Axl, Dtk/Tyro3, and Mer (3). Shed soluble forms of Axl and Mer retain the ability to bind Gas6 and function as decoy receptors (4, 5). Gas6 participates in tissue homeostasis by protecting cells from stress-induced apoptosis and promoting apoptotic cell phagocytosis. The affinity of the  $\gamma$ -carboxylated Gla domain for phosphatidylserine contributes to the role of Gas6 in phagocytosis as well as the cellular entry of select viruses (6, 7). Gas6 can function as a pro-inflammatory molecule by promoting platelet activation (8, 9) and can also inhibit inflammatory cytokine production from monocytes, macrophages, and microglia (10). In addition, Gas6 induces the proliferation of cardiac fibroblasts, Schwann cells, vascular smooth muscle cells, and the differentiation of NK cell precursors (11-14). It also inhibits VEGF-induced angiogenesis (15) and can have either positive or negative effects on tumor cell proliferation and invasion (16, 17).

**References:**

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