Recombinant Human Gas6
Catalog Number: 885-GSB

DESCRIPTION

Source: Mouse myeloma cell line, NS0-derived human Gas6 protein
Ala49-Ala678, with a C-terminal 6-His tag
Accession # NP_000811

<table>
<thead>
<tr>
<th>N-terminal Sequence Analysis</th>
<th>Ala49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Molecular Mass</td>
<td>70.5 kDa</td>
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</table>

SPECIFICATIONS

SDS-PAGE: 70-85 kDa, reducing conditions
The ED50 for this effect is 25-150 ng/mL.
Endotoxin Level: <1.0 EU per 1 μg of the protein by the LAL method.
Purity: >90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation: Lyophilized from a 0.2 μm filtered solution in Tris, NaCl and Citrate. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution: Reconstitute at 500 μg/mL in sterile water.
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:

Bioactivity of Recombinant Human Gas6 protein
Recombinant Human Gas6 Catalog # 885-GSB down regulates the expression of Axl in DU145 human prostate carcinoma cells. The ED50 for this effect is 25-150 ng/mL.

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Gas6 is a multimodular protein that is up-regulated by a wide variety of cell types in response to growth arrest (1). Gas6 and the structurally related Protein S are vitamin K-dependent and have an extensively γ-carboxylated N-terminal Gla domain, four EGF-like repeats, and a C-terminal region with homology to steroid hormone binding globulin (SHBG) (2). Human Gas6 is a 75 kDa protein that shares 77%-79% aa sequence identity with mouse and rat Gas6, and 43% aa identity with human protein S (over the region expressed). Alternate splicing generates isoforms that lack the Gla domain and/or the spacer between the EGF-like and SHBG regions. Gas6 binds and induces signaling through the receptor tyrosine kinases Axl, Dtk, and Mer (3-5). Human Gas6 interacts with both mouse and rat orthologs of these receptors (1). The full length isoform may be cleaved, resulting in release of the free SHBG region which can independently activate Axl (6). Shed soluble forms of Axl and Mer bind Gas6 and function as decoy receptors (7, 8). Gas6 induces a variety of responses, including prevention of apoptosis (9), cell proliferation (10), platelet-mediated thrombosis (11), retinal epithelial cell phagocytosis of outer rod segments (12), inhibition of VEGF-induced endothelial cell chemotaxis (13), and the differentiation and expansion of NK cell precursors (14). The affinity of Gas6 for phosphatidylserine likely contributes to its role in promoting the phagocytosis of apoptotic cells (15). Several of these effects have been shown to require γ-carboxylation of the Gla domain (12, 16).

References: