

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived			
	Mouse Axl (His20-Pro443) Accession # Q80YQ3	IEGRMD	Human IgG ₁ (Pro100-Lys330)	6-His tag
	N-terminus		C-terminus	

N-terminal Sequence His20

Analysis

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 73.8 kDa (monomer)

SPECIFICATIONS

SDS-PAGE 100-110 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA. When Recombinant Mouse Axl Fc Chimera is coated at 2 µg/mL (100 µL/well), the concentration of Recombinant Mouse Gas6 (Catalog # 986-GS) that produces 50% optimal binding response is 0.4-2 ng/mL.

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

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

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

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 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.

BACKGROUND

Axl (Ufo, Ark), Dtk (Sky, Tyro3, Rse, Brt), and Mer (human and mouse homologues of chicken c-Eyk) constitute a subfamily of the receptor tyrosine kinases (1, 2). The extracellular domains of these proteins contain two Ig-like motifs and two fibronectin type III motifs. This characteristic topology is also found in neural cell adhesion molecules and in receptor tyrosine phosphatases. The mouse Axl cDNA encodes an 888 amino acid (aa) precursor that includes an 18 aa signal sequence, a 427 aa extracellular domain, a 21 aa transmembrane segment, and a 422 aa cytoplasmic domain. The extracellular domains of mouse and human Axl share 81% aa sequence identity. These receptors bind the vitamin K-dependent protein growth arrest specific gene 6 (Gas6) which is structurally related to the anticoagulation factor protein S. Binding of Gas6 induces receptor autophosphorylation and downstream signaling pathways that can lead to cell proliferation, migration, or the prevention of apoptosis (3). This family of tyrosine kinase receptors is involved in hematopoiesis, embryonic development, tumorigenesis, and regulation of testicular functions.

References:

1. Yanagita, M. (2004) *Curr. Opin. Nephrol. Hypertens.* **13**:465.
2. Nagata, K. *et al.* (1996) *J. Biol. Chem.* **271**:30022.
3. Holland, S. *et al.* (2005) *Canc. Res.* **65**:9294.