Recombinant Human Axl Fc Chimera

Catalog Number: 154-AL

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived

Human Axl (Glu33-Pro440) Accession # AAA61243	DIEGRMD	Human IgG_1 (Pro100-Lys330)	6-His tag

N-terminus C-terminus

N-terminal Sequence Analysis Glu33

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 71.7 kDa (monomer)

SPECIFICATIONS

SDS-PAGE 100-110 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Human Axl Fc Chimera is immobilized at 5 ng/mL (100 µL/well), the concentration of recombinant human Gas6 that produces 50% of the optimal binding response is approximately 0.75-4.5 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, also known as Ufo and Ark, is a widely expressed 140 kDa glycoprotein in the TAM receptor tyrosine kinase family. TAM family receptors (Dtk/Tyro3, Axl, and Mer) are involved in regulation of the inflammatory response, cell survival and migration, and tumorigenesis (1). Mature human Axl consists of a 426 aa extracellular domain (ECD) that contains two Ig-like domains and two fibronectin type III domains, a 21 aa transmembrane segment, and a 422 aa cytoplasmic domain that includes the tyrosine kinase domain (2). Within the ECD, human Axl shares approximately 82% aa sequence identity with mouse and rat Axl. A short alternately spliced form of human Axl has a 9 aa deletion in the extracellular juxtamembrane region (2). Axl binds the vitamin K-dependent protein Gas6 which triggers tyrosine autophosphorylation of the Axl cytoplasmic domain (3). Activation of Axl induces a broad range of activities including platelet aggregation and thrombus formation (4), macrophage and dendritic cell phagocytosis of apoptotic cells (5), NK cell development from hematopoietic progenitor cells (6), and *in vivo* angiogenesis (7). Axl is highly expressed in solid cancers and promotes *in vivo* tumorigenesis and tumor cell invasiveness (7, 8). It contributes to vascular remodeling and inflammatory cell infiltration in response to hypertension and restricted blood flow (9). It also functions as a cellular entry receptor for Gas6-opsonized lentiviruses (10). A 70-80 kDa soluble portion of the Axl ECD can be shed by proteolytic cleavage, and this fragment retains the ability to bind Gas6 (11, 12).

References:

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