AXL Protein, Human (449a.a, HEK293, His)

Cat. No.:	HY-P74407
Synonyms:	Tyrosine-protein kinase receptor UFO; AXL oncogene; UFO
Species:	Human
Source:	HEK293
Accession:	AAB20305.1 (E33-P449)
Gene ID:	558
Molecular Weight:	55-90 kDa

PROPERTIES

AA Sequence	E E S P F V G N P G N I T G A R G L T G T L R C Q L Q V Q G E P P E V H W L R D G Q I L E L A D S T Q T Q V P L G E D E Q D D W I V V S Q L R I T S L Q L S D T G Q Y Q C L V F L G H Q T F V S Q P G Y V G L E G L P Y F L E E P E D R T V A A N T P F N L S C Q A Q G P P E P V D L L W L Q D A V P L A T A P G H G P Q R S L H V P G L N K T S S F S C E A H N A K G V T T S R T A T I T V L P Q Q P R N L H L V S R Q P T E L E V A W T P G L S G I Y P L T H C T L Q A V L S D D G M G I Q A G E P D P P E E P L T S Q A S V P P H Q L R L G S L H P H T P Y H I R V A C T S S Q G P S S W T H W L P V E T P E G V P L G P P E N I S A T R N G S Q A F V H W Q E P R A P L Q G T L L G Y R L A Y Q G Q D T P E V L M D I G L R Q E V T L E L Q G D G S V S N L T V C V A A Y T A A G D G P W S L P V P L E A W R P G Q A Q P V H Q L V K E P S T P A F S W P
Biological Activity	Immobilized AXL at 2 μg/mL (100 μL/well) can bind Biotinylated GAS6 protein. The ED_{50} for this effect is 32.18 ng/mL, corresponding to a specific activity is 3.11×10^4 Unit/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The AXL protein, a receptor tyrosine kinase, serves as a key mediator in transducing signals from the extracellular matrix into the cytoplasm by binding the growth factor GAS6, thereby regulating diverse physiological processes such as cell survival, proliferation, migration, and differentiation. Ligand binding at the cell surface induces AXL dimerization and autophosphorylation. Upon activation, AXL interacts with and induces the tyrosine phosphorylation of various downstream signaling molecules, including PI3-kinase subunits (PIK3R1, PIK3R2, and PIK3R3), GRB2, PLCG1, LCK, PTPN11, CBL, NCK2, SOCS1, and TNS2. This triggers the recruitment of GRB2 and regulatory subunits of phosphatidylinositol 3 kinase, leading to the downstream activation of the AKT kinase. The GAS6/AXL signaling axis plays a pivotal role in various processes such as endothelial cell survival, optimal cytokine signaling during human natural killer cell development, hepatic regeneration, gonadotropin-releasing hormone neuron survival and migration, platelet activation, and the regulation of thrombotic responses. Additionally, AXL is involved in inhibiting Toll-like receptors (TLRs)-mediated innate immune responses, and in the context of microbial infection, it acts as a receptor for lassa virus and lymphocytic choriomeningitis virus, possibly through GAS6 binding to phosphatidyl-serine at the surface of the virion envelope.

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