Datasheet for ABIN1672764

AXL ELISA Kit

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Overview

Quantity:	96 tests
Target:	AXL
Binding Specificity:	AA 33-440
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human AXL
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: E33-P440
Specificity:	Expression system for standard: NSO Immunogen sequence: E33-P440
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	AXL
Alternative Name:	AXL (AXL Products)
Background:	Protein Function: Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding growth factor GAS6 and which is thus regulating many physiological processes including cell survival, cell proliferation, migration and differentiation. Ligand binding at the cell surface induces dimerization and autophosphorylation of AXL. Following activation by ligand, ALX binds and induces tyrosine phosphorylation of PI3- kinase subunits PIK3R1, PIK3R2 and PIK3R3, but also GRB2, PLCG1, LCK and PTPN11. Other downstream substrate candidates for AXL are CBL, NCK2, SOCS1 and TNS2. Recruitment of GRB2 and phosphatidylinositol 3 kinase regulatory subunits by AXL leads to the downstream activation of the AKT kinase. GAS6/AXL signaling plays a role in various processes such as endothelial cell survival during acidification by preventing apoptosis, optimal cytokine signaling during human natural killer cell development, hepatic regeneration, gonadotropin-releasing hormone neuron survival and migration, platelet activation, or regulation of thrombotic responses. Plays also an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response. In case of filovirus infection, seems to function as a cell entry factor. . Background: Tyrosine-protein kinase receptor UFO is an enzyme that in humans is encoded by the AXL gene. The protein encoded by this gene is a member of the receptor tyrosine kinase subfamily. Although it is similar to other receptor tyrosine kinases, the Axl protein represents a unique structure of the extracellular region that juxtaposes IgL and FNIII repeats. It transduces signals from the extracellular matrix into the cytoplasm by binding growth factors like vitamin K-dependent protein growth-arrest-specific gene 6. It is involved in the stimulation of cell proliferation. This receptor can also mediate cell aggregation by homophilic binding. Axl is a chronic myelogenous leukemia-associated oncogene and also associated with colon cancer and melanoma. It is in close vicinity to the bcl3 oncogene, which is at 19q13.1-q13.2. The Axl gene is evolutionarily conserved between vertebrate species. This gene has two different alternatively spliced transcript variants.

Target Details

	Synonyms: Tyrosine-protein kinase receptor UFO,2.7.10.1,AXL oncogene,AXL,UFO, Full Gene Name: Tyrosine-protein kinase receptor UFO Cellular Localisation: Cell membrane, Single-pass type I membrane protein.
Gene ID:	558
UniProt:	P30530
Pathways:	RTK Signaling, Cellular Response to Molecule of Bacterial Origin

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the protein kinase superfamily. Tyr protein kinase family. AXL/UFO subfamily. Tissue Specificity: Highly expressed in metastatic colon tumors. Expressed in primary colon tumors. Weakly expressed in normal colon tissue. .
Plate:	Pre-coated
Protocol:	human AXL ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for AXL has been precoated onto 96-well plates. Standards(NSO, E33-P440) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for AXL is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human AXL amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human AXL standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human AXL standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 445, Standard deviation: 21.36, CV(%): 4.8 • Sample 2: n=16, Mean(pg/ml): 1038, Standard deviation: 52.94, CV(%): 5.1

Application Details

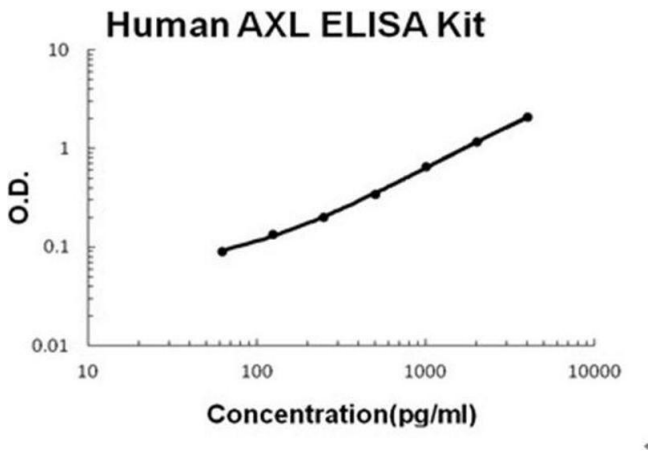
- Sample 3: n=16, Mean(pg/ml): 2294, Standard deviation: 119.2, CV(%): 5.2,
- Sample 1: n=24, Mean(pg/ml): 482, Standard deviation: 27.47, CV(%): 5.7
- Sample 2: n=24, Mean(pg/ml): 1257, Standard deviation: 75.42, CV(%): 6
- Sample 3: n=24, Mean(pg/ml): 2380, Standard deviation: 145.2, CV(%): 6.1

Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Images



ELISA

Image 1. Human AXL PicoKine ELISA Kit standard curve