abcam

ab130218

Anti-Axl antibody [7E10]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	7E10
Purification technique	Affinity purification Protein A
Concentration	1.203 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.974 µg/mL
Notes	-

WB

Tested

Species	Human
Dilution info	1.947 µg/mL
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	7.788 µg/mL
Notes	-

Target data

See full target information AXL

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, AXL 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. Also plays an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response. (Microbial infection) Acts as a receptor for lassa virus and lymphocytic choriomeningitis virus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope. (Microbial infection) Acts as a receptor for Ebolavirus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope. (Microbial infection) Promotes Zika virus entry in glial cells, Sertoli cells and astrocytes (PubMed:28076778, PubMed:29379210, PubMed:31311882). Additionally, Zika virus potentiates AXL kinase activity to antagonize type I interferon signaling and thereby promotes infection (PubMed:28076778). Interferon signaling inhibition occurs via an SOCS1-dependent mechanism (PubMed:29379210).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Axl protein also known as AXL receptor tyrosine kinase plays a significant role in cell signaling. It has a molecular weight of approximately 98 kDa. Axl is a transmembrane receptor that is expressed in a variety of tissues including the immune system reproductive organs and the central nervous system. It is mainly recognized for transmitting signals from the extracellular matrix into the cytoplasm by binding with its ligand Gas6.
Biological function summary	Axl is important in mediating cell survival proliferation and migration. It functions as part of the TAM family of receptors which also includes Tyro3 and Mer. Axl often forms complexes with these receptors to facilitate efficient signaling. This interaction triggers phosphorylation events that activate downstream signaling proteins reinforcing its influence in cellular functions.

Pathways	Axl is deeply involved in the PI3K-Akt and MAPK signaling pathways which are central to cellular growth and survival. In these pathways Axl interacts closely with proteins like PI3K and Akt to regulate processes such as apoptosis and metabolism. Its interaction with these pathways places Axl as an important modulator of intracellular signaling cascades.
Associated diseases and disorders	Axl has been implicated in cancer progression and immune response dysregulation. In many cancer types Axl overexpression links to tumor invasion metastasis and resistance to therapy. Moreover Axl's role in autoimmune diseases becomes evident through its association with the Gas6 protein. Exploring these connections furthers understanding of how Axl's aberrant activity influences health and disease.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

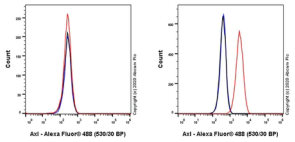
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images



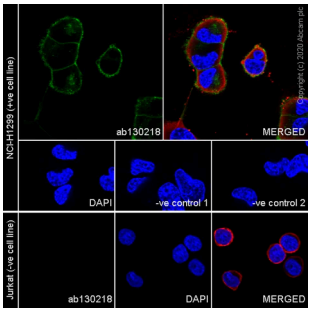
Flow Cytometry - Anti-Axl antibody [7E10] (ab130218)

Axl Flow Cytometry staining using mouse Anti-Axl antibody

Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte, Left panel) / HeLa (Human cervix adenocarcinoma epithelial cell, Right panel) labeling Axl using Anti-Axl antibody

[7E10] (ab130218) at 0.974 µg/mL. Mouse monoclonal IgG isotype control (Black). The unlabeled control is cells without incubation with primary antibody or secondary antibody (Blue).
Negative control: Jurkat.

Gated on viable cells.

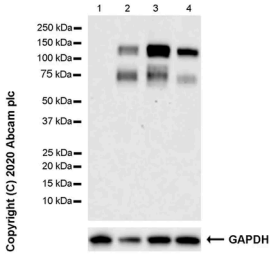


Immunocytochemistry/ Immunofluorescence - Anti-Axl antibody [7E10] (ab130218)

Axl Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Axl antibody

Immunofluorescent analysis of 4% methanol-fixed, 0.1% Triton X-100 permeabilized NCI-H1299 cells labeling Axl with ab130218 at 7.788 µg/mL, followed by Goat Anti-Mouse IgG (Alexa Fluor® 488) (ab150113) secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining on NCI-H1299 cell line.
Negative control: Jurkat (PMID:28423548).

The nuclear counterstain is DAPI (blue). Tubulin is detected with ab179513 Anti-beta Tubulin rabbit monoclonal antibody at 1/200 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 594) (ab150080) secondary antibody at 1/1000 dilution (red).
The negative controls are as follows:
-ve control 1: ab130218 at 1/250 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 594) (ab150080) secondary antibody at 1/1000 dilution.
-ve control 2: ab179513 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution.



Western blot - Anti-Axl antibody [7E10] (ab130218)

The molecular weight observed was consistant with the literature (PMID: 19541935).
Negative control: Jurkat (PMID: 28423548).

Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-Axl antibody [7E10] (ab130218) at 1.947 µg/mL

Lane 1:
Jurkat (human T cell leukemia T lymphocyte), whole cell lysate at 20 µg

Lane 2:
DU145 (human prostate carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 3:
NCI-H1299 (human lung carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 4:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 98 kDa

Observed band size: 140 kDa, 80 kDa

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.