

## **Human Axl Antibody**

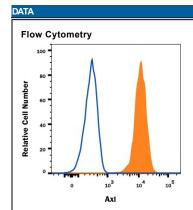
Monoclonal Mouse IgG<sub>1</sub> Clone # 108724 Catalog Number: MAB154

DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human AxI in direct ELISAs. In direct ELISAs, this antibody shows no cross-reactivity with recombinant mouse AxI, recombinant human (rh) Dtk or rhMer.		
Source	Monoclonal Mouse IgG <sub>1</sub> Clone # 108724		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	Mouse myeloma cell line NS0-derived recombinant human AxI Met1-Pro440 Accession # AAA61243		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

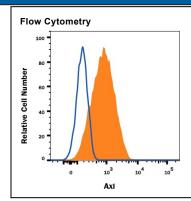
## APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

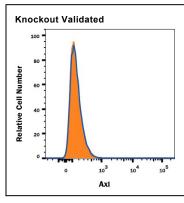
	Recommended Concentration	Sample
Flow Cytometry	0.25 μg/10 <sup>6</sup> cells	See Below
Human Axl Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human Axl Antibody (Catalog # MAB154)
ELISA Detection	0.1-0.4 μg/mL	Human Axl Biotinylated Antibody (Catalog # BAF154)
Standard		Recombinant Human Axl Fc Chimera (Catalog # 154-AL)
CyTOF-ready	Ready to be labeled conjugation.	using established conjugation methods. No BSA or other carrier proteins that could interfere with
Knockout Validated	AxI is specifically detected in A431 human epithelial carcinoma parental cell line but is not detectable in AxI knockout A431 cell line.	



Detection of Axl in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line was stained with Mouse Anti-Human Axl Monoclonal Antibody (Catalog # MAB154, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram) followed by APC-conjugated Goat anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for Staining Membrane-associated Proteins.



Detection of Axl in A431 Human Cell Line by Flow Cytometry. A431 human epithelial carcinoma cell line was stained with Mouse Anti-Human Axl Monoclonal Antibody (Catalog # MAB154, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram) followed by APC-conjugated Goat anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for Staining Membrane-associated Proteins.



Axl Specificity is Shown by Flow Cytometry in Knockout Cell Line. Axl knockout A431 human epithelial carcinoma cell line was stained with Mouse Anti-Human Axl Monoclonal Antibody (Catalog # MAB154, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram) followed by APC-conjugated Goat anti-Mouse IgG Secondary Antibody (Catalog # F0101B). No staining in the Axl knockout A431 cell line was observed. View our protocol for Staining Membrane-associated Proteins.

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Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.  The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
Shipping		
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.  6 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 human Axl cDNA encodes an 887 amino acid (aa) precursor that includes an 18 as signal sequence, a 426 aa extracellular domain, a 21 aa transmembrane segment, and a 422 aa cytoplasmic domain. The extracellular domains of human and mouse Axl share 81% aa sequence identity. A short alternately spliced form of human Axl is distinguished by a 9 aa deletion in the extracellular juxtamembrane region. 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. 22:30022.
- 3. Holland, S. et al. (2005) Canc. Res. 65:9294.