

DESCRIPTION

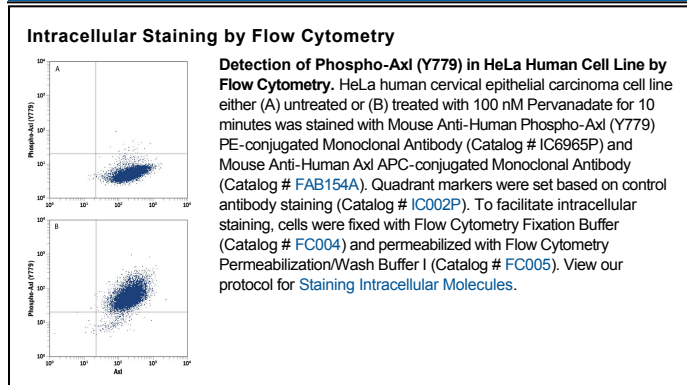
| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human Phospho-Axl (Y779) in direct ELISAs and Western blots. |
| Source | Monoclonal Mouse IgG ₁ Clone # 713610 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Phosphopeptide containing the human Axl Y779 site |
| Conjugate | Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm |
| Formulation | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

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 |
|---|----------------------------------|---------------|
| Intracellular Staining by Flow Cytometry | 10 µL/10 ⁶ cells | See Below |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|---|
| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. ● 12 months from date of receipt, 2 to 8 °C as supplied. |

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 aa 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 alternatively 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. Phosphorylation of Tyrosine 779 provides a docking site for p85 subunits of PI 3-Kinase (4).

References:

1. Yanagita, M. (2004) *Curr. Opin. Nephrol. Hypertens.* **13**:465.
2. Nagata, K. *et al.* (1996) *J. Biol. Chem.* **271**:30022.
3. Holland, S. *et al.* (2005) *Cancer Res.* **65**:9294.
4. Weinger, J.G. *et al.* (2008) *J. Neurochem.* **106**:134.