

DESCRIPTION

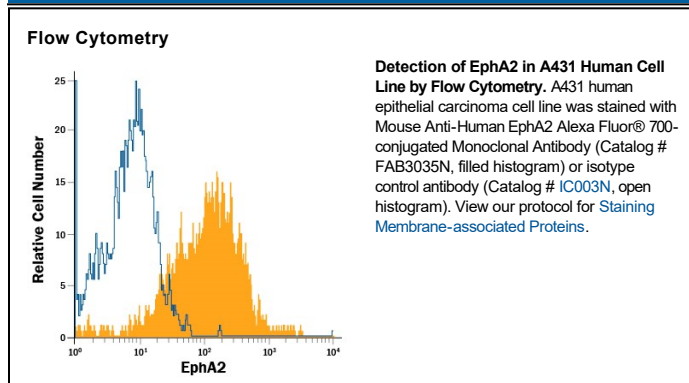
Species Reactivity	Human
Specificity	Detects human EphA2 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse EphA4, A5, A6, A7, A8, or recombinant rat EphB1 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 371805
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human EphA2 Gln25-Asn534 Accession # P29317
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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
Flow Cytometry	5 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

EphA2 (Erythropoietin-producing Hepatocellular Carcinoma-A2), also known as Eck, Myk2, and Sek2, is a 120-130 kDa member of the Ephrin receptor subfamily, tyrosine protein kinase family of molecules. It is one of at least 13 mammalian subfamily members that are divided into two groups (A and B) that are named for the corresponding class of ligand (Ephrins [Eph-receptor Interacting Protein]) to which they bind (1, 2). Mature EphA2 is a 953 amino acid (aa) type I transmembrane glycoprotein that contains a 514 aa extracellular domain (ECD). The ECD is characterized by the presence of one Eph ligand-binding domain and two fibronectin type III repeats. EphA2 binds Ephrins A1-A5, with subsequent receptor oligomerization and signal transduction (1, 2). It also exists, however, in a ligand-independent, auto-activated monomeric and inactive, homodimeric state, leading to complexities in its actions (3). Further, it is also known to form heterodimers with EphB6, a kinase-negative receptor that dampens EphA2 activity (4). EphA2 is expressed by a wide variety of cell types, including osteoblasts, neurons, capillary endothelium, Schwann cells, keratinocytes, Langerhans cells (LC) and IDC (mature LCs), cortical lens fiber cells and placenta-derived mesenchymal stem cells where EphA2 may serve as a biomarker (2, 5-11). Over aa 25-534, human and mouse EphA2 share 91% sequence identity.

References:

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4. Akada, M. *et al.* (2014) Cell. Signal. **26**:2879.
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