

DESCRIPTION

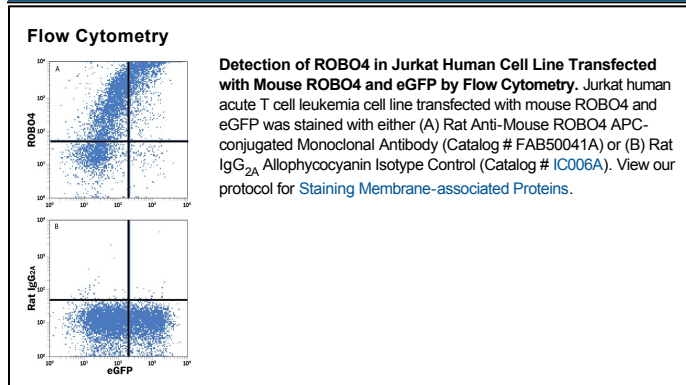
Species Reactivity	Mouse
Specificity	Detects mouse ROBO4 in flow cytometry.
Source	Monoclonal Rat IgG _{2A} Clone # 274914
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Y3 rat myeloid cell line transfected with mouse ROBO4
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 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	10 μ L/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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

ROBO4, also known as Magic Roundabout, is a ~150 kDa glycoprotein belonging to the ROBO family. ROBOs are molecular guidance receptors that typically interact with Slit ligands to regulate axon guidance and neuronal migration. Unlike other family members, ROBO4 is mainly restricted to the vascular endothelium. Expression in early hematopoietic progenitors is also reported. Vascular endothelial ROBO4 is expressed at highest levels in during development and vascular remodeling, including tumor angiogenesis. It is proposed to contribute to vascular stability. Consistent with this, endogenous ROBO4 is concentrated in the vascular stalk and sprouts rather than tip cells and appears to protect newly formed blood vessels against VEGF-induced vascular leak. ROBO4 binding of Slit proteins has been variably reported, and when detected may be mediated by ROBO4/ROBO1 heterodimers. ROBO4 is also variably reported to stimulate or inhibit cell migration or filopodia formation. Effects on cell movement may be mediated through intracellular binding of WASP-, Ras/Rac/Rho-, Mena-, Src-, or Paxillin-related proteins, all of which affect the cytoskeleton. Recombinant soluble ROBO4 ECD can antagonize endothelial cell migration and *in vivo* angiogenesis.