

FITC-Labeled ROBO1 Protein, Human (HEK293, His)

Cat. No.:	HY-P701307
Synonyms:	ROBO1/DUTT1
Species:	Human
Source:	HEK293
Accession:	Q9Y6N7 (Q26-P897)
Gene ID:	6091
Molecular Weight:	110-120 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 μ m filtered solution of PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 1 year, protect from light. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The ROBO1 Protein serves as a receptor for SLIT1 and SLIT2, playing a pivotal role in mediating cellular responses to molecular guidance cues during cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons during neuronal development. Its interaction with the intracellular domain of FLRT3 facilitates axon attraction towards cells expressing NTN1, and in axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may involve the formation of a ROBO1-DCC complex. Additionally, ROBO1 Protein contributes to the regulation of cell migration through its interaction with MYO9B, inhibiting MYO9B-mediated stimulation of RHOA GTPase activity and consequently leading to increased levels of active, GTP-bound RHOA. This receptor may also play a role in lung development. Existing as a homodimer, dimerization is facilitated by the extracellular domain and is independent of SLIT liganding. ROBO1 Protein interacts with SLIT1, SLIT2, FLRT3, and MYO9B, indicating its diverse involvement in cellular signaling pathways.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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