SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-phospho-EPH A3+A4+A5 (Tyr779)/Cy3 Conjugated antibody

Catalog Number: SL7555R-Cy3

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-phospho-EPH A3+A4+A5 (Tyr779)/Cy3
Immunogen:	KLH conjugated synthesised phosphopeptide derived from human around the phosphorylation site of EPH 3 Tyr779
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human Mouse Rat(predicted:Chicken Dog Pig Cow Horse Rabbit)
Background:	background: EphA3 is a member of the Ephrin (Eph) family. The Ephrins and Eph-related receptors comprise the largest subfamily of receptor protein-tyrosine kinases and have been implicated in mediating developmental events, especially in the nervous system and in erythropoiesis. Based on their structures and sequence relationships, ephrins are divided into the Ephrin A (EphA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the Ephrin B (EphB) class, which are transmembrane proteins. Receptors in the EPH subfamily typically have a single kinase domain and an extracellular region containing a Cys-rich domain and 2 fibronectin type III repeats. **Function:** Receptor tyrosine kinase which binds promiscuously membrane-bound ephrin family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while

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	the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Highly promiscuous for ephrin-A ligands it binds preferentially EFNA5. Upon activation by EFNA5 regulates cell-cell adhesion, cytoskeletal organization and cell migration. Plays a role in cardiac cells migration and differentiation and regulates the formation of the atrioventricular canal and septum during development probably through activation by EFNA1. Involved in the retinotectal mapping of neurons. May also control the segregation but not the guidance of motor and sensory axons during neuromuscular circuit development. **Subunit:** Heterotetramer upon binding of the ligand. The heterotetramer is composed of an ephrin dimer and a receptor dimer. Oligomerization is probably required to induce biological responses. Forms a ternary EFNA5-EPHA3-ADAM10 complex mediating EFNA5 extracellular domain shedding by ADAM10 which regulates the EFNA5-EPHA3 complex internalization and function. Interacts with NCK1 (via SH2 domain); mediates EFNA5-EPHA3 signaling (By similarity). Interacts (phosphorylated) with PTPN1; dephosphorylates EPHA3 and may regulate its trafficking and function. Interacts (phosphorylated) with CRK; mediates EFNA5-EPHA3 signaling through RHOA GTPase activation. **Subcellular Location:** Isoform 1: Cell membrane; Single-pass type I membrane protein. Isoform 2: Secreted. **Tissue Specificity:** Widely expressed. Highest level in placenta. **Post-translational modifications:** Autophosphorylates upon activation by EFNA5. Phosphorylation on Tyr-602 mediates interaction with NCK1. Dephosphorylated by PTPN1. DISEASE: Defects in EPHA3 may be a cause of colorectal cancer (CRC) [MIM:114500]. **Similarity:** Belongs to the protein kinase superfamily. Tyr protein kinase family. Ephrin receptor subfamily. Contains 1 Eph LBD (Eph ligand-binding) domain. Contains 2 fibronectin type-III domains. Contains 1 protein kinase domain. Contains 1 SAM (sterile alpha motif) domain. **Database links:** **Entrez Gene:** 2042 Human **Entrez Gene:** 2043 Human **Entrez Gene:** 2044 Human **Entrez Gene:** 13837 Mouse

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	Entrez Gene: 13838 Mouse **Entrez Gene:** 13839 Mouse **Entrez Gene:** 29210 Rat **Entrez Gene:** 316539 Rat **Entrez Gene:** 79208 Rat Omim: 179611 Human Omim: 600004 Human Omim: 602188 Human **SwissProt:** P29320 Human **SwissProt:** P54756 Human **SwissProt:** P54764 Human **SwissProt:** P29319 Mouse **SwissProt:** Q03137 Mouse **SwissProt:** Q60629 Mouse **SwissProt:** O08680 Rat **SwissProt:** P54757 Rat **Unigene:** 123642 Human **Unigene:** 371218 Human **Unigene:** 654492 Human **Unigene:** 137991 Mouse **Unigene:** 1977 Mouse **Unigene:** 400747 Mouse **Unigene:** 10713 Rat **Unigene:** 24569 Rat **Unigene:** 6202 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.