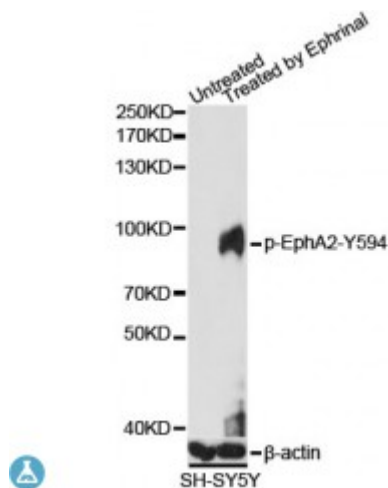


Anti-Phospho-EPHA2-(Y594) Antibody



Description

This gene belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family. EPH and EPH-related receptors have been implicated in mediating developmental events, particularly in the nervous system. 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. The ephrin receptors are divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. This gene encodes a protein that binds ephrin-A ligands. Mutations in this gene are the cause of certain genetically-related cataract disorders.

Model	STJ117916
Host	Rabbit
Reactivity	Human, Rat
Applications	WB
Immunogen	A synthetic phosphorylated peptide around Y594 of human EphA2 (NP_004422.2).
Gene ID	1969
Gene Symbol	EPHA2
Dilution range	WB 1:500 - 1:2000
Tissue Specificity	Expressed in brain and glioma tissue and glioma cell lines (at protein level), Expressed most highly in tissues that contain a high proportion of epithelial cells, e.g, skin, intestine, lung, and ovary
Purification	Affinity purification

Note	For Research Use Only (RUO).
Protein Name	Ephrin type-A receptor 2
Molecular Weight	108.266 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:3386OMIM:116600Reactome:R-HSA-2682334
Alternative Names	Ephrin type-A receptor 2
Function	Receptor tyrosine kinase which binds promiscuously membrane-bound ephrin-A 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 the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling, Activated by the ligand ephrin-A1/EFNA1 regulates migration, integrin-mediated adhesion, proliferation and differentiation of cells, Regulates cell adhesion and differentiation through DSG1/desmoglein-1 and inhibition of the ERK1/ERK2 (MAPK3/MAPK1, respectively) signaling pathway, May also participate in UV radiation-induced apoptosis and have a ligand-independent stimulatory effect on chemotactic cell migration, During development, may function in distinctive aspects of pattern formation and subsequently in development of several fetal tissues, Involved for instance in angiogenesis, in early hindbrain development and epithelial proliferation and branching morphogenesis during mammary gland development, Engaged by the ligand ephrin-A5/EFNA5 may regulate lens fiber cells shape and interactions and be important for lens transparency development and maintenance, With ephrin-A2/EFNA2 may play a role in bone remodeling through regulation of osteoclastogenesis and osteoblastogenesis,
Cellular Localization	Cell membrane,
Post-translational Modifications	Autophosphorylates, Phosphorylated on tyrosine upon binding and activation by EFNA1, Phosphorylated residues Tyr-588 and Tyr-594 are required for binding VAV2 and VAV3 while phosphorylated residues Tyr-735 and Tyr-930 are required for binding PI3-kinase p85 subunit (PIK3R1, PIK3R2 or PIK3R3), These phosphorylated residues are critical for recruitment of VAV2 and VAV3 and PI3-kinase p85 subunit which transduce downstream signaling to activate RAC1 GTPase and cell migration, Dephosphorylation of Tyr-930 by PTPRF prevents the interaction of EPHA2 with NCK1, Phosphorylated at Ser-897 by PKB