10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-EPHA2 Antibody

Catalog # AP53895

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P29317
Other Accession	P29320, P54764
Reactivity	Human, Mouse, Rat, Chicken, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	108266

Additional Information

Gene ID	1969
Other Names	EPHA2; ECK; Ephrin type-A receptor 2; Epithelial cell kinase; Tyrosine-protein kinase receptor ECK; EPHA3; ETK; ETK1; HEK; TYRO4; Ephrin type-A receptor 3; EPH-like kinase 4; EK4; hEK4; HEK; Human embryo kinase; Tyrosine-protein kinase TYRO4; Tyrosine-protein kinase receptor ETK1; Eph-like tyrosine kinase 1; EPHA4; HEK8; SEK; TYRO1; Ephrin type-A receptor 4; EPH-like kinase 8; EK8; hEK8; Tyrosine-protein kinase TYRO1; Tyrosine-protein kinase receptor SEK
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EPHA2. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	EPHA2
Synonyms	ECK
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.

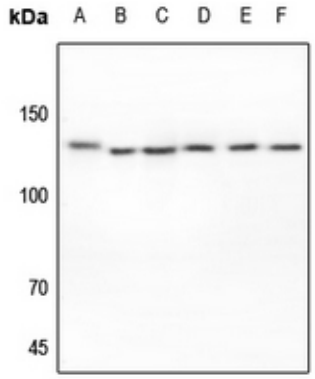
Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, ruffle membrane; Single-pass type I membrane protein. Cell projection, lamellipodium membrane; Single-pass type I membrane protein. Cell junction, focal adhesion. Note=Present at regions of cell-cell contacts but also at the leading edge of migrating cells (PubMed:19573808, PubMed:20861311). Relocates from the plasma membrane to the cytoplasmic and perinuclear regions in cancer cells (PubMed:18794797).

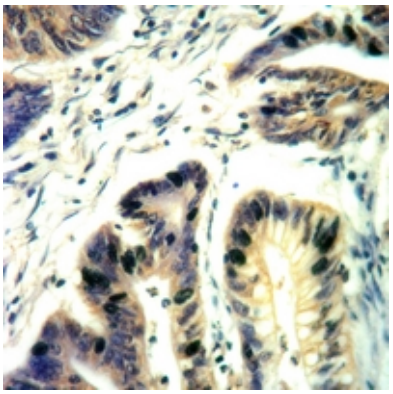
Tissue Location

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.

Images

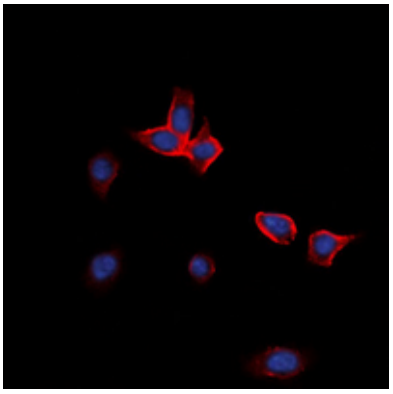


Western blot analysis of EPHA2 expression in HEK293T (A), Hela (B), H1688 (C), mouse liver (D), mouse kidney (E), rat liver (F) whole cell lysates. (Predicted band size: 108; 110; 109 kD; Observed band size: 130 kD)



Immunohistochemical analysis of EPHA2 staining in human colorectal cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of EPHA2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells



were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.