

Anti-EPHA3 Antibody

Catalog # AP59547

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P29320
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Chicken, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	110131

Additional Information

Gene ID	2042
Other Names	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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human EPHA3. The exact sequence is proprietary.
Dilution	WB~~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	EPHA3
Synonyms	ETK, ETK1, HEK, TYRO4
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 the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling (PubMed: 11870224 , PubMed: 12794130). Highly promiscuous for ephrin-A ligands it binds preferentially EFNA5 (By similarity). Upon activation by EFNA5 regulates cell-cell adhesion, cytoskeletal organization and cell migration (PubMed: 11870224). Also activated by EFNA1, inhibiting epithelial-to-mesenchymal transition of cardiac cells and playing a role in heart development (PubMed: 12794130). 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 (By similarity).

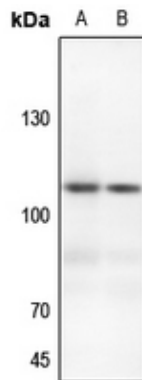
Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein

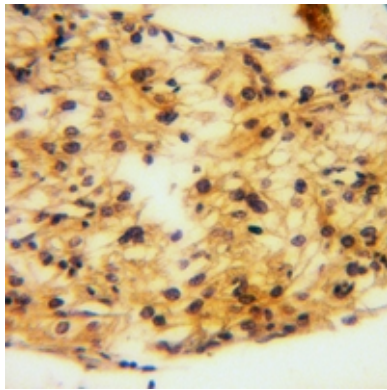
Tissue Location

Widely expressed. Highest level in placenta.

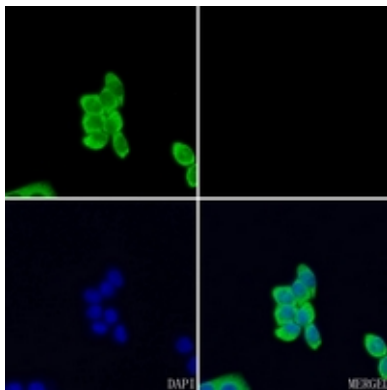
Images



Western blot analysis of EPHA3 expression in mouse liver (A), mouse kidney (B) whole cell lysates. (Predicted band size: 110 kD; Observed band size: 110 kD)



Immunohistochemical analysis of EPHA3 staining in human kidney 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 EPHA3 staining in MCF7 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 humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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