

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850 UNITED STATES Phone: +1-888-267-4436 Fax: +1-301-340-8606 techsupport@origene.com

OriGene Technologies GmbH

32052 Herford GERMANY Phone: +49-5221-34606-0 Fax: +49-5221-34606-11 info-de@origene.com

Schillerstr. 5

AP55721PU-S Polyclonal Antibody to EPHA2/3/4 pTyr588/596 - Aff - Purified

Alternate names: ECK, EK4, Eph receptor A2, Ephrin type-A receptor 2, Epithelial cell kinase, TYRO4,

Tyrosine-protein kinase receptor ECK/ ETK1

Quantity: $50 \mu g$ Concentration: 1.0 mg/ml

Background: 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.

Uniprot ID: P29317

NCBI: NP 004422.2

GenelD: 1969
Host: Rabbit

Immunogen: Peptide sequence around phosphorylation site of tyrosine 588/596 (K-T-Y(p)-V-R)/(R-T-

Y(p)-V-D) derived from Human EPHA2/3/4 (KLH-conjugated)

Format: State: Liquid Ig fraction

Purification: Affinity chromatography using epitope-specific peptide

Buffer System: Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH

7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol

Applications: Western blot: 1:500~1:1000.

Immunofluorescence: 1:100~1:200.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

Molecular Weight: 130 kDa

Specificity: The antibody detects endogenous levels of EPHA2/3/4 only when phosphorylated at

tyrosine 588/596

Species Reactivity: Tested: Human, Mouse

Storage: Upon receipt, store undiluted (in aliquots) at -20°C.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings: 1. Lindberg RA, Hunter T. cDNA cloning and characterization of eck, an epithelial cell

receptor protein-tyrosine kinase in the eph/elk family of protein kinases. Mol Cell

Biol. 1990 Dec;10(12):6316-24. PubMed PMID: 2174105.

2. Zhang Y, Wolf-Yadlin A, Ross PL, Pappin DJ, Rush J, Lauffenburger DA, et al. Time-resolved mass spectrometry of tyrosine phosphorylation sites in the epidermal growth

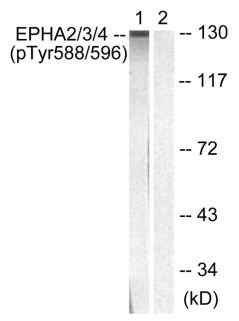


factor receptor signaling network reveals dynamic modules. Mol Cell Proteomics. 2005 Sep;4(9):1240-50. Epub 2005 Jun 11. PubMed PMID: 15951569.

3. Zhuang G, Hunter S, Hwang Y, Chen J. Regulation of EphA2 receptor endocytosis by SHIP2 lipid phosphatase via phosphatidylinositol 3-Kinase-dependent Rac1 activation. J Biol Chem. 2007 Jan 26;282(4):2683-94. Epub 2006 Nov 29. PubMed PMID: 17135240.

Pictures:

Western blot analysis of extracts from HepG2 cells using EPHA2/3/4 (Phospho-Tyr588/596) Antibody AP55721PU-N.The lane on the right is treated with the antigen-specific peptide.



Immunofluorescence staining of methanol-fixed HeLa cells using EPHA2/3/4 (Phospho-Tyr588/596) Antibody AP55721PU-N.

