

**EphA7 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7612b****Specification**

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**EphA7 Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">Q15375</a>
Other Accession	<a href="#">O42422</a>
Reactivity	Human
Predicted	Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	896-925

**EphA7 Antibody (C-term) - Additional Information****Gene ID** 2045**Other Names**

Ephrin type-A receptor 7, EPH homology kinase 3, EHK-3, EPH-like kinase 11, EK11, hEK11, EPHA7, EHK3, HEK11

**Target/Specificity**

This EphA7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 896-925 amino acids from the C-terminal region of human EphA7.

**Dilution**

WB~~1:1000

IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

EphA7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**EphA7 Antibody (C-term) - Protein Information****Name** EPHA7

**Synonyms** EHKB, HEK11

**Function** Receptor tyrosine kinase which binds promiscuously GPI- anchored 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. Among GPI-anchored ephrin-A ligands, EFNA5 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2, MAPK1 and MAPK3 which are phosphorylated upon activation of EPHA7.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

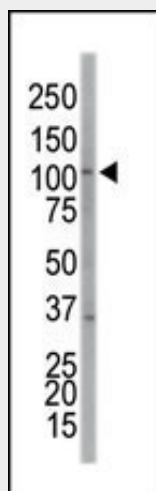
**Tissue Location**

Widely expressed.

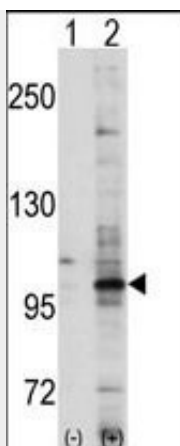
**EphA7 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

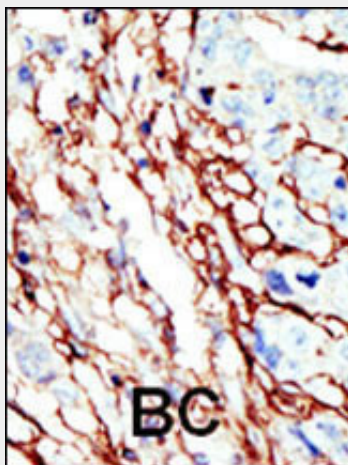
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**EphA7 Antibody (C-term) - Images**

Western blot analysis of anti-EphA7 Pab (Cat. #AP7612b) in NCI-H460 cell lysate. EphA7 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Western blot analysis of EphA7 (arrow) using EphA7 Antibody (C-term) (Cat.#AP7612b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the EphA7 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

### **EphA7 Antibody (C-term) - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The tyrosine kinase (TK) group is mainly involved in the regulation of cell-cell interactions such as differentiation, adhesion, motility and death. There are currently about 90 TK genes sequenced, 58 are of receptor protein TK (e.g. EGFR, EPH, FGFR, PDGFR, TRK, and VEGFR families), and 32 of cytosolic TK (e.g. ABL, FAK, JAK, and SRC families).

### **EphA7 Antibody (C-term) - References**

Wilkinson, D.G., Nat Rev Neurosci 2(3):155-164 (2001). Xu, Q., et al., Philos. Trans. R. Soc. Lond., B, Biol. Sci. 355(1399):993-1002 (2000). Holder, N., et al., Development 126(10):2033-2044 (1999).

Zhou, R., Pharmacol. Ther. 77(3):151-181 (1998). Fox, G.M., et al., Oncogene 10(5):897-905 (1995).

**EphA7 Antibody (C-term) - Citations**

- [EphA7 regulates spiral ganglion innervation of cochlear hair cells.](#)
- [Eph/ephrin profiling in human breast cancer reveals significant associations between expression level and clinical outcome.](#)
- [Differential expression of EphA7 receptor tyrosine kinase in gastric carcinoma.](#)