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

# EphA3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7608a

## Product Information

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|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | P29320 |
| **Other Accession** | P29319 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB01584 |
| **Calculated MW** | 110131 |
| **Antigen Region** | 115-144 |

## Additional Information

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| **Gene ID** | 2042 |
| **Other Names** | 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, EPHA3, ETK, ETK1, HEK, TYRO4 |
| **Target/Specificity** | This EphA3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 115-144 amino acids from the N-terminal region of human EphA3. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 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** | EphA3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | EPHA3 |
| **Synonyms** | ETK, ETK1, HEK, TYRO4 |

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| **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. |

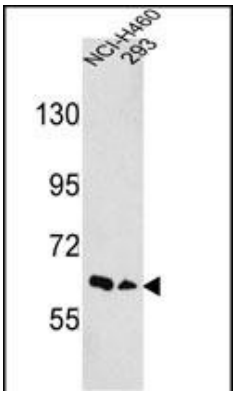
## Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g 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).

## References

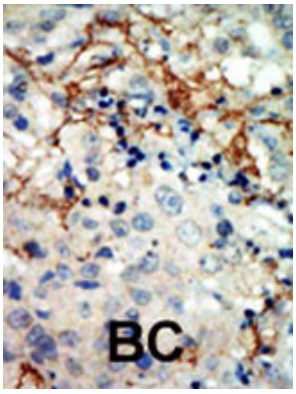
Chiari, R., et al., Cancer Res. 60(17):4855-4863 (2000). Wicks, I.P., et al., Proc. Natl. Acad. Sci. U.S.A. 89(5):1611-1615 (1992). Boyd, A.W., et al., J. Biol. Chem. 267(5):3262-3267 (1992).

## Images




Western blot analysis of hEPHA3-D130 (Cat. #AP7608a) in NCI-H460,293 cell line lysates (35ug/lane). EPHA3 (arrow) was detected using the purified Pab.

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.

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