

**LTK Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7658a****Specification**

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**LTK Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P29376](#)**LTK Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 4058**Other Names**

Leukocyte tyrosine kinase receptor, Protein tyrosine kinase 1, LTK, TYK1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7658a](/product/products/AP7658a) was selected from the N-term region of human LTK. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**LTK Antibody (N-term) Blocking Peptide - Protein Information****Name** LTK {ECO:0000303|PubMed:1655406, ECO:0000312|HGNC:HGNC:6721}**Function**

Receptor with a tyrosine-protein kinase activity (PubMed: [10445845](http://www.uniprot.org/citations/10445845), PubMed: [20548102](http://www.uniprot.org/citations/20548102), PubMed: [30061385](http://www.uniprot.org/citations/30061385)). Following activation by ALKAL1 or ALKAL2 ligands at the cell surface, transduces an extracellular signal into an intracellular response (PubMed: [30061385](http://www.uniprot.org/citations/30061385), PubMed: [34646012](http://www.uniprot.org/citations/34646012)). Ligand-binding to the extracellular domain induces tyrosine kinase activation, leading to activation of the mitogen-activated protein kinase (MAPK) pathway (PubMed: [20548102](http://www.uniprot.org/citations/20548102)). Phosphorylates almost exclusively at the first tyrosine of the Y-x-x-x- Y-Y motif (By similarity). The exact function of this protein is not known; studies with chimeric proteins demonstrate its ability to

promote growth and specifically neurite outgrowth, and cell survival (PubMed:<a href="http://www.uniprot.org/citations/9223670" target="\_blank">9223670</a>, PubMed:<a href="http://www.uniprot.org/citations/18849880" target="\_blank">18849880</a>). Involved in regulation of the secretory pathway involving endoplasmic reticulum (ER) export sites (ERESs) and ER to Golgi transport (PubMed:<a href="http://www.uniprot.org/citations/20548102" target="\_blank">20548102</a>).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**Tissue Location**

Expressed in non-hematopoietic cell lines and T- and B-cell lines.

**LTK Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**LTK Antibody (N-term) Blocking Peptide - Images****LTK Antibody (N-term) Blocking Peptide - 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).

**LTK Antibody (N-term) Blocking Peptide - References**

Toyoshima, H., et al., Proc. Natl. Acad. Sci. U.S.A. 90(12):5404-5408 (1993).Krolewski, J.J., et al., EMBO J. 10(10):2911-2919 (1991).Maru, Y., et al., Oncogene Res. 5(3):199-204 (1990).