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KIT Antibody (C-term S821/Y823) Blocking Peptide

Synthetic peptide
Catalog # BP19037b

Specification

KIT Antibody (C-term S821/Y823) Blocking Peptide - Product Information

Primary Accession P05532

KIT Antibody (C-term S821/Y823) Blocking Peptide - Additional Information

Gene ID 16590

Other Names
Mast/stem cell growth factor receptor Kit, SCFR, Proto-oncogene c-Kit, Tyrosine-protein kinase Kit, CD117, Kit, Sl

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.

KIT Antibody (C-term S821/Y823) Blocking Peptide - Protein Information

Name Kit

Synonyms Sl

Function
Tyrosine-protein kinase that acts as a cell-surface receptor for the cytokine KITLG/SCF and plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. In response to KITLG/SCF binding, KIT can activate several signaling pathways. Phosphorylates PIK3R1, PLCG1, SH2B2/APS and CBL. Activates the AKT1 signaling pathway by phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Activated KIT also transmits signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. Promotes activation of STAT family members STAT1, STAT3, STAT5A and STAT5B. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5- trisphosphate. KIT signaling is modulated by protein phosphatases, and by rapid internalization and degradation of the receptor. Activated KIT promotes phosphorylation of the protein phosphatases PTPN6/SHP-1 and PTPRU, and of the transcription factors STAT1, STAT3, STAT5A and STAT5B. Promotes phosphorylation of PIK3R1, CBL, CRK (isoform Crk-II), LYN, MAPK1/ERK2 and/or MAPK3/ERK1, PLCG1, SRC and SHC1.

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein [Isoform 3]: Cytoplasm. Note=Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head.

Tissue Location
Isoform 1 and isoform 2 are detected in bone marrow cells, spermatogonia and spermatocytes, but not in round spermatids, elongating spermatids and spermatozoa. Isoform 3 is detected in round spermatids, elongating spermatids and spermatozoa, but not in spermatogonia and spermatocytes (at protein level). Isoform 1 is widely expressed and detected in fetal liver and bone marrow. Isoform 3 is detected in bone marrow cells enriched in hematopoietic stem cells

KIT Antibody (C-term S821/Y823) Blocking Peptide - Protocols

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

- Blocking Peptides

KIT Antibody (C-term S821/Y823) Blocking Peptide - Images

KIT Antibody (C-term S821/Y823) Blocking Peptide - Background

This gene encodes the human homolog of the proto-oncogenec-kit. C-kit was first identified as the cellular homolog of thefeline sarcoma viral oncogene v-kit. This protein is a type 3transmembrane receptor for MGF (mast cell growth factor, also knownas stem cell factor). Mutations in this gene are associated withgastrointestinal stromal tumors, mast cell disease, acutemyelogenous lukemia, and piebaldism. Multiple transcript variantsencoding different isoforms have been found for this gene.

KIT Antibody (C-term S821/Y823) Blocking Peptide - References

Molderings, G.J., et al. Immunogenetics 62 (11-12), 721-727 (2010) :Cheng, M., et al. Circ. Res. 107(9):1083-1093(2010)Chi, P., et al. Nature 467(7317):849-853(2010)Rossi, S., et al. Am. J. Surg. Pathol. 34(10):1480-1491(2010)Chen, P., et al. World J. Gastroenterol. 16(33):4227-4232(2010)