Phospho-C-Kit-Y721 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AE1008c

**Specification**

**Phospho-C-Kit-Y721 Antibody - Product Information**

- **Application**: WB
- **Primary Accession**: P10721
- **Reactivity**: Human, Mouse, Rat
- **Host**: Rabbit
- **Clonality**: Polyclonal
- **Concentration**: 1mg/ml
- **Isotype**: Rabbit IgG
- **Calculated MW**: 109865

**Western blot analysis of extracts from 293T cells (transfected with wild or mutant type c-kit/pc DNA3.1) treated with SCF (100ng/ml, 15min), using Phospho-C-Kit-Y721 Antibody (#AE1008c).**

**Phospho-C-Kit-Y721 Antibody - Additional Information**

**Gene ID**: 3815

**Other Names**: Mast/stem cell growth factor receptor Kit, SCFR, Piebald trait protein, PBT, Proto-oncogene c-Kit, Tyrosine-protein kinase Kit, p145 c-kit, v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog, CD117, KIT, SCFR

**Target/Specificity**: The antibody was affinity-purified from rabbit antiserum using epitope-specific phosphopeptide column, and the antibody against non-phosphopeptide was removed using non-phosphopeptide column corresponding to the phosphorylation site.

**Dilution**: WB 1:500–1:1000

**Format**: affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

**Storage**: Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**: Phospho-C-Kit-Y721 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-C-Kit-Y721 Antibody - Background**

This gene encodes the human homolog of the proto-oncogene c-kit. C-kit was first identified as the cellular homolog of the feline sarcoma viral oncogene v-kit. This protein is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). Mutations in this gene are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukaemia, and piebaldism. Multiple transcript variants encoding different isoforms have been found for this gene.

**Phospho-C-Kit-Y721 Antibody - References**


Promoter polymorphisms and methylation of E-cadherin (CDH1) and KIT in gastric cancer patients from northern Brazil. Borges Bdo N, et
Phospho-C-Kit-Y721 Antibody - Protein Information

Name KIT

Synonyms SCFR

Function
Tyrosine-protein kinase that acts as 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 spermatogonia and Leydig cells. Isoform 3 is detected in round spermatids, elongating spermatids and spermatozoa (at protein level). Widely expressed. Detected in the hematopoietic system, the gastrointestinal system, in melanocytes and in germ cells

Phospho-C-Kit-Y721 Antibody - 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