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# Phospho-mouse KIT(S716) Blocking Peptide

**Synthetic peptide**
**Catalog # BP3784q**

## Specification

### Phospho-mouse KIT(S716) Blocking Peptide - Product Information

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|---|---|
| Primary Accession | P05532 |
| Other Accession | NP_066922.2 |

### Phospho-mouse KIT(S716) 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

**Target/Specificity**
The synthetic peptide sequence is selected from aa 713-725 of MOUSE Kit

**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.

### Phospho-mouse KIT(S716) 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

## Phospho-mouse KIT(S716) Blocking Peptide - Protocols

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

- Blocking Peptides

## Phospho-mouse KIT(S716) Blocking Peptide - Images

## Phospho-mouse KIT(S716) Blocking Peptide - Background

The c-Kit proto-oncogene is the cellular homolog of the transforming gene of a feline retrovirus (v-Kit). The c-kit protein includes characteristics of a protein kinase transmembrane receptor. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq].

## Phospho-mouse KIT(S716) Blocking Peptide - References

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