

# Product Information

## Recombinant Anti-Human kit Antibody Fab Fragment

Cat. No.: **MOM-18329-F(E)**

This product is for research use only and is not intended for diagnostic use.

### Product Overview

Recombinant Mouse Antibody Fab Fragment is directed against Human KIT, expressed in Chinese Hamster Ovary cells(CHO)

### Antigen Description

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.

### Specific Activity

Tested positive against native antigen.

### Target

KIT

### Immunogen

Synthetic peptide conjugated to KLH, corresponding to amino acids 927-942 of Human Kit (c-Kit).

### Source

Mouse

### Species Reactivity

Human

### Type

Fab

### Expression Host

CHO

### Purity

>95.0% as determined by analysis by RP-HPLC.

### Applications

Suitable for use in FC, IP, ELISA, Neut, FuncS, IF and most other immunological methods.

**Storage**

Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C long term. Avoid repeated freeze/thaw cycles.

**ANTIGEN GENE INFORMATION****Gene Name**

[KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog \[ Homo sapiens \]](#)

**Official Symbol**

KIT

**Synonyms**

KIT; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; PBT, piebald trait; mast/stem cell growth factor receptor Kit; C Kit; CD117; SCFR; p145 c-kit; proto-oncogene c-Kit; piebald trait protein; soluble KIT variant 1; tyrosine-protein kinase Kit; proto-oncogene tyrosine-protein kinase Kit; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene-like protein; PBT; C-Kit

**Gene ID**

[3815](#)

**mRNA Refseq**

[NM\\_000222](#)

**Protein Refseq**

[NP\\_000213](#)

**MIM**

[164920](#)

**UniProt ID**

P10721

**Chromosome Location**

4q11-q12

**Pathway**

Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; C-MYB transcription factor network, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem;

**Function**

ATP binding; cytokine binding; metal ion binding; nucleotide binding; protease binding; protein binding; protein homodimerization activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; stem cell factor receptor activity; transmembrane receptor protein tyrosine kinase activity;