

Rabbit anti-Human, Mouse KIT Polyclonal Antibody | anti-KIT antibody

KIT Antibody

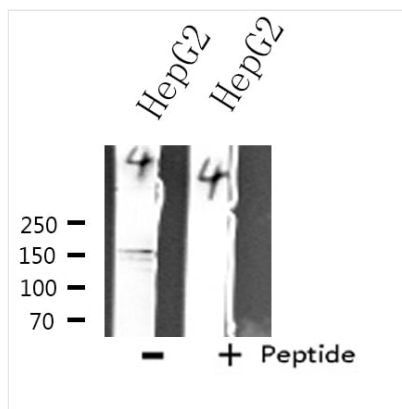
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322214	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

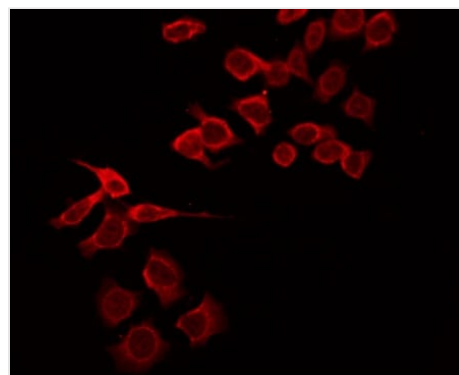
KIT; Polyclonal Antibody; KIT Antibody; C Kit; c-Kit; c-Kit Ligand; CD117; Kit; Kit Ligand; KIT oncogene; KIT proto oncogene receptor tyrosine kinase; KIT_HUMAN; Mast cell growth factor receptor; Mast/stem cell growth factor receptor Kit; MGF; p145 c-kit; PBT; Piebald trait protein; Proto oncogene c Kit; Proto oncogene tyrosine protein kinase Kit; Proto-oncogene c-Kit; SCF Receptor; SCFR; soluble KIT variant 1; Steel Factor Receptor; Stem cell factor receptor; tyrosine protein kinase Kit; Tyrosine-protein kinase Kit; v kit Hardy Zuckerman 4 feline sarcoma viral oncogene homolog; v kit Hardy Zuckerman 4 feline sarcoma viral oncogene like protein; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; anti-KIT antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	KIT antibody detects endogenous levels of total KIT
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	976
Applicable Applications for anti-KIT antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human KIT
Subcellular Location	Cell Membrane and Cytoplasm. Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head.
Tissue Specificity	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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (92%), Horse (100%), Rabbit (85%), Dog (85%), Chicken (83%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

**WB (Western Blot)**

Western blot analysis of KIT expression in HepG2 whole cell lysates. The lane on the left is treated with the antigen-specific peptide.

**IF (Immunofluorescence)**

AAA322214 staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION**Related Product Information for anti-KIT antibody**

Description: KIT 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. KIT is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). Mutations in KIT are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukemia, and piebaldism.

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. **Subunit Structure:** Monomer in the absence of bound KITLG/SCF. Homodimer in the presence of bound KITLG/SCF, forming a heterotetramer with two KITLG/SCF molecules. Interacts (via phosphorylated tyrosine residues) with the adapter proteins GRB2 and GRB7 (via SH2 domain), and SH2B2/APS. Interacts (via C-terminus) with MPDZ (via the tenth PDZ domain). Interacts (via phosphorylated tyrosine residues) with PIK3R1 and PIK3 catalytic subunit. Interacts (via phosphorylated tyrosine) with CRK (isoform Crk-II), FYN, SHC1 and MATK/CHK (via SH2 domain). Interacts with LYN and FES/FPS. Interacts (via phosphorylated tyrosine residues) with the protein phosphatases PTPN6/SHP-1 (via SH2 domain), PTPN11/SHP-2 (via SH2 domain) and PTPRU. Interacts with PLCG1. Interacts with DOK1 and TEC. Interacts (KITLG/SCF-bound) with IL1RL1. Interacts with IL1RAP (independent of stimulation with KITLG/SCF). A mast cell-specific KITLG/SCF-induced interleukin-33 signaling complex contains IL1RL1, IL1RAP, KIT and MYD88.

Post-translational Modifications: Ubiquitinated by SOCS6. KIT is rapidly ubiquitinated after autophosphorylation induced by KITLG/SCF binding, leading to internalization and degradation. Autophosphorylated on tyrosine residues. KITLG/SCF binding enhances autophosphorylation. Isoform 1 shows low levels of tyrosine phosphorylation in the absence of added KITLG/SCF (in vitro). Kinase activity is down-regulated by phosphorylation on serine residues by protein kinase C family members. Phosphorylation at Tyr-568 is required for interaction with PTPN11/SHP-2, CRK (isoform Crk-II) and members of the SRC tyrosine-protein kinase family. Phosphorylation at Tyr-570 is required for interaction with PTPN6/SHP-1. Phosphorylation at Tyr-703, Tyr-823 and Tyr-936 is important for interaction with GRB2. Phosphorylation at Tyr-721 is important for interaction with PIK3R1. Phosphorylation at Tyr-823 and Tyr-936 is important for interaction with GRB7.

Similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557695
NCBI GeneID	3815
NCBI Accession #	NP_000213.1
NCBI GenBank Nucleotide #	NM_000222.2
UniProt Accession #	P10721; Q6IQ28; Q99662; Q9UM99; B5A956; D5LXN2; D5M931; F5H8F8
Molecular Weight	Observed: 145 kDa Predicted: 110 kDa
NCBI Official Full Name	mast/stem cell growth factor receptor Kit isoform 1
NCBI Official Synonym Full Names	KIT proto-oncogene receptor tyrosine kinase
NCBI Official Symbol	KIT
NCBI Official Synonym Symbols	PBT; SCFR; C-Kit; CD117; MASTC
NCBI Protein Information	mast/stem cell growth factor receptor Kit
UniProt Protein Name	Mast/stem cell growth factor receptor Kit
UniProt Gene Name	KIT
UniProt Synonym Gene Names	SCFR; SCFR; PBT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/kit-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/322214>