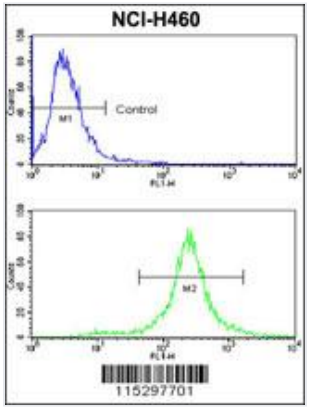
KIT Antibody – Rabbit Polyclonal

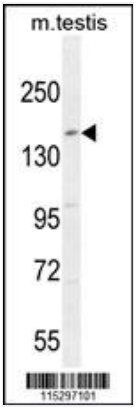
PRODUCT OVERVIEW

Product Name	KIT, Polyclonal Antibody
Full Product Name	KIT Antibody (N-term D121)
Product Gene Name	anti-KIT antibody
Product Synonym 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
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human, mouse
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 2 (lot specific)
Specificity	This KIT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 106-135 amino acids from the N-terminal region of human KIT.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	KIT peptide (MBS9227128) is used for blocking the activity of KIT antibody (MBS9207238)
Molecular Weight	109865
Immunogen Sequence Positions	106-135
OMIM	164920
3D Structure	ModBase 3D Structure for P10721
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-KIT antibody	Cancer; Developmental Biology; Immunology; Neuroscience; Signal Transduction
Applications Tested/Suitable for anti-KIT antibody	Western Blot (WB), ELISA (EIA), Immunohistochemistry (IHC), Flow Cytometry (FC/FACS)
Application Notes for anti-KIT antibody	FC~~1:10~50 WB~~1:1000
Related Product Information for anti-KIT antibody	KIT is 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 lukemia, and piebaldism.
Product References and Citations for anti-KIT antibody	Wardelmann, E., et al., Int. J. Cancer 106(6):887-895 (2003). Lennartsson, J., et al., Exp. Cell Res. 288(1):110-118 (2003). Sakuma, Y., et al., Cancer Sci 94(6):486-491 (2003). Araki, K., et al., Lung Cancer 40(2):173-180 (2003). Voytyuk, O., et al., J. Biol. Chem. 278(11):9159-9166 (2003).

Other Notes	Small volumes of anti-KIT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for KIT purchase	MBS9207238 is an antibody targeting KIT. Also known as KIT Antibody (N-term D121). Reactive in Human, mouse. Host: Rabbit.



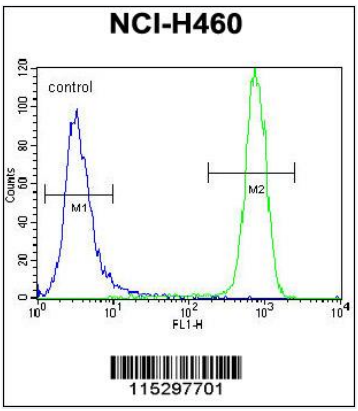
Flow Cytometry (FC/FACS) of anti-KIT antibody
Flow cytometric analysis of NCI-H460 cells using KIT Antibody (N-term D121)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western Blot (WB) of anti-KIT antibody
KIT Antibody (N-term D121) western blot analysis in mouse testis tissue lysates (35ug/lane).This demonstrates the KIT antibody detected the KIT protein (arrow).



Immunohistochemistry (IHC) of anti-KIT antibody
KIT Antibody (N-term D121) immunohistochemistry analysis in formalin fixed and paraffin embedded human skin tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of KIT Antibody (N-term D121) for immunohistochemistry. Clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-KIT antibody
KIT Antibody (N-term D121) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KIT. It may not necessarily be applicable to this product.

NCBI GI #	4557695
NCBI GeneID	3815
NCBI Accession #	NP_000213.1
NCBI Related Accession #	NP_001087241.1
UniProt Primary Accession #	P10721
UniProt Secondary Accession #	Q6IQ28; Q99662; Q9UM99; B5A956; D5LXN2; D5M931; F5H8F8
UniProt Related Accession #	P10721
GenBank Nucleotide #	NM_000222.2

NCBI Official Full Name	mast/stem cell growth factor receptor Kit isoform 1
NCBI Official Synonym Full Names	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
NCBI Official Symbol	KIT
NCBI Official Synonym Symbols	PBT; SCFR; C-Kit; CD117
UniProt Protein Name	Mast/stem cell growth factor receptor Kit
UniProt Synonym Protein Names	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; CD_antigen: CD117
Protein Family	Mast/stem cell growth factor receptor
UniProt Gene Name	KIT
UniProt Synonym Gene Names	SCFR; SCFR; PBT
UniProt Entry Name	KIT_HUMAN
NCBI Protein Information	mast/stem cell growth factor receptor Kit
NCBI Summary for KIT	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 lukemia, and piebaldism. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for KIT	Kit: a receptor tyrosine kinase and a member of the subfamily that includes PDGF, CSF-1 and FLT-3/flk-2 receptors. Receptor for stem cell factor. Plays a critical role in hematopoietic stem cell, mast cell, melanocyte and germ cell development. Ligand binding induces autophosphorylation, dimerization and activation, leading to the recruitment and phosphorylation of downstream SH2-containing signaling components including PLC-gamma, PI3 kinase p85, SHP2 and CrkL, linking c-Kit to various cell signaling pathways. Molecular lesions that impair the kinase activity of c-Kit are associated with a variety of developmental disorders, while mutations that constitutively activate c-Kit can lead to hyperplasia and tumorigenesis. Activating mutations cause >90% of gastrointestinal stromal tumors (GIST); successfully treated with inhibitors Gleevec (imatinib, Glivec) and Sutent (Sutinib, SU11248). Activating mutations also induce mastocytosis. Autocrine/paracrine stimulation may drive some lung and other tumors. Loss of expression associated with melanoma progression. Familial loss of function mutations cause piebaldism, with defects in hair and skin pigmentation due to lack of melanocytes. Protein type: Protein kinase, tyrosine (receptor); Membrane protein, integral; Protein kinase, TK; Oncoprotein; Kinase, protein; EC 2.7.10.1; TK group; PDGFR family Chromosomal Location of Human Ortholog: 4q12 Cellular Component: extracellular space; internal side of plasma membrane; mast cell granule; plasma membrane; integral to membrane; acrosome; intercellular junction; external side of plasma membrane Molecular Function: protein binding; protein homodimerization activity; protease binding; metal ion binding; cytokine binding; protein-tyrosine kinase activity; stem cell factor receptor activity; transmembrane receptor protein tyrosine kinase activity; receptor signaling protein tyrosine kinase activity; ATP binding Biological Process: nerve growth factor receptor signaling pathway; activation of MAPK activity; somatic stem cell maintenance; germ cell programmed cell death; positive regulation of JAK-STAT cascade; lymphoid progenitor cell differentiation; positive regulation of long-term neuronal synaptic plasticity; positive regulation of tyrosine phosphorylation of Stat3 protein; regulation of cell shape; epithelial cell proliferation; germ cell migration; somatic stem cell division; erythrocyte differentiation; T cell differentiation; fibroblast growth factor receptor signaling pathway; embryonic hemopoiesis; mast cell chemotaxis; stem cell differentiation; detection of mechanical stimulus involved in sensory perception of sound; positive regulation of phosphoinositide 3-kinase cascade; positive regulation of tyrosine phosphorylation of Stat1 protein; immature B cell differentiation; regulation of pigmentation during development; positive regulation of transcription factor activity; glycosphingolipid metabolic process; mast cell cytokine production; peptidyl-tyrosine phosphorylation; protein amino acid autophosphorylation; signal transduction; positive regulation of MAPKKK cascade; myeloid progenitor cell differentiation; ovarian follicle development; positive regulation of cell proliferation; melanocyte differentiation; negative regulation of programmed cell death; visual learning; hemopoiesis; inflammatory response; positive regulation of Notch signaling pathway; epidermal growth factor receptor signaling pathway; lamellipodium biogenesis; phosphoinositide-mediated signaling; dendritic cell cytokine production; cytokine and chemokine mediated signaling pathway; stem cell maintenance; male gonad development; positive regulation of phosphoinositide 3-kinase activity; mast cell degranulation; regulation of cell proliferation; positive regulation of pseudopodium formation; positive regulation of tyrosine phosphorylation of Stat5 protein; pigmentation; gut development; actin cytoskeleton reorganization; innate immune response; spermatogenesis; spermatid development; positive regulation of cell migration Disease: Gastrointestinal Stromal Tumor; Mast Cell Disease; Piebald Trait; Testicular Germ Cell Tumor
Research Articles on KIT	**1.** analysis of mutations of KIT gene in two Korean patients with variegated shades of phenotypes in tyrosine kinase 1 domain
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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