

# KIT Antibody (Center T274 )

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP18710c

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P10721</a>
<b>Other Accession</b>	<a href="#">NP_000213.1</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB39721
<b>Calculated MW</b>	109865
<b>Antigen Region</b>	252-281

## Additional Information

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<b>Gene ID</b>	3815
<b>Other Names</b>	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
<b>Target/Specificity</b>	This KIT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 252-281 amino acids from the Central region of human KIT.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	KIT Antibody (Center T274 ) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	KIT
<b>Synonyms</b>	SCFR

<b>Function</b>	<p>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.</p>
<b>Cellular Location</b>	<p>[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.</p>
<b>Tissue Location</b>	<p>[Isoform 3]: In testis, detected in spermatogonia in the basal layer and in interstitial Leydig cells but not in Sertoli cells or spermatocytes inside the seminiferous tubules (at protein level) (PubMed:20601678). Expression is maintained in ejaculated spermatozoa (at protein level) (PubMed:20601678)</p>

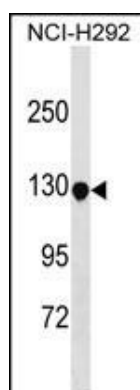
## Background

This is the receptor for stem cell factor (mast cell growth factor). It has a tyrosine-protein kinase activity. Binding of the ligands leads to the autophosphorylation of KIT and its association with substrates such as phosphatidylinositol 3-kinase (Pi3K).

## References

Molderings, G.J., et al. Immunogenetics 62 (11-12), 721-727 (2010) :  
 Cheng, M., et al. Circ. Res. 107(9):1083-1093(2010)  
 Chi, P., et al. Nature 467(7317):849-853(2010)  
 Rossi, S., et al. Am. J. Surg. Pathol. 34(10):1480-1491(2010)  
 Chen, P., et al. World J. Gastroenterol. 16(33):4227-4232(2010)

## Images



KIT Antibody (Center T274 ) (Cat. #AP18710c) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the KIT antibody detected the KIT protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.