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# KIT Antibody (C-term S821/Y823)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19037b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P05532 |
| **Other Accession** | Q2HWD6, P10721, P43481, NP_000213.1 |
| **Reactivity** | Human |
| **Predicted** | Bovine, Pig, Mouse, Rat, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB39716 |
| **Calculated MW** | 109343 |
| **Antigen Region** | 807-836 |

## Additional Information

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| **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** | This KIT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 807-836 amino acids from the C-terminal region of human KIT. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | 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. |
| **Storage** | 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. |
| **Precautions** | KIT Antibody (C-term S821/Y823) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Kit |
| **Synonyms** | Sl |

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| **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 |

## Background

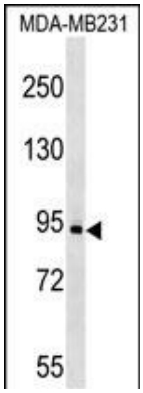
This gene encodes the human homolog of the proto-oncogene c-kit. C-kit was first identified as the cellular homolog of the feline sarcoma viral oncogene v-kit. This protein is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). Mutations in this gene are 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.

## 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 (C-term S821/Y823) (Cat. #AP19037b) western blot analysis in MDA-MB231 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'.