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Phospho-mouse KIT(Y719) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3784l

Product Information

Application	DB, E
Primary Accession	P05532
Other Accession	NP_066922.2
Reactivity	Mouse
Predicted	Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39427
Calculated MW	109343

Additional Information

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 mouse KIT Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y719 of mouse KIT.
Dilution	DB~~1:500 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	Phospho-mouse KIT(Y719) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Kit
Synonyms	Sl
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

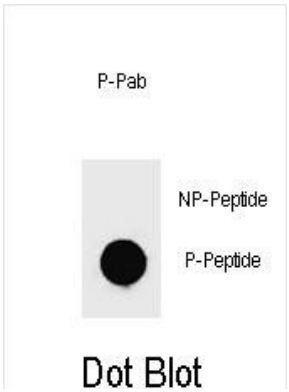
The c-Kit proto-oncogene is the cellular homolog of the transforming gene of a feline retrovirus (v-Kit). The c-kit protein includes characteristics of a protein kinase transmembrane receptor. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq].

References

Cheng, L.E., et al. J. Immunol. 185(9):5040-5047(2010)
Maeda, K., et al. J. Immunol. 185(7):4252-4260(2010)
Beverdam, A., et al. Dev. Dyn. 239(10):2735-2741(2010)
Ohnmacht, C., et al. Immunity 33(3):364-374(2010)
Chappaz, S., et al. J. Immunol. 185(6):3514-3519(2010)

Images

Dot blot analysis of Phospho-mouse KIT-Y719 Antibody Phospho-specific Pab (Cat. #AP3784l) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.



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