

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone C117/370 + KIT/982 + KIT/983]
Catalog # AH11624

Specification

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Product Information

Application	IHC, IF, FC
Primary Accession	P10721
Other Accession	3815 , 479754
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG's
Calculated MW	~145kDa KDa

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Additional Information

Gene ID 3815

Other Names

Mast/stem cell growth factor receptor Kit, SCFR, 2.7.10.1, 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

Application Note

IHC~~1:100~500
IF~~1:50~200
FC~~1:10~50

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Protein Information

Name KIT

Synonyms SCFR

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

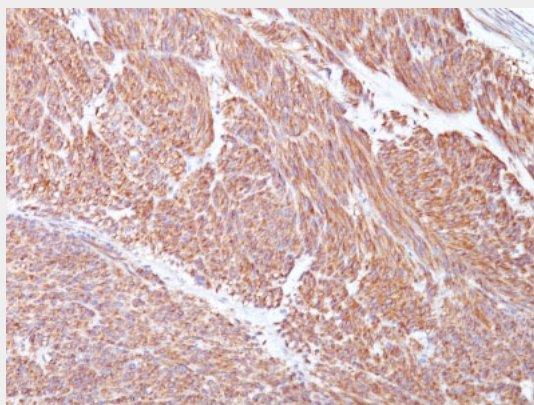
[Isoform 3]: In testis, detected in spermatogonia in the basal layer and in interstitial Leydig cells but not in Sertoli cells or spermatocytes inside the seminiferous tubules (at protein level) (PubMed:20601678). Expression is maintained in ejaculated spermatozoa (at protein level) (PubMed:20601678)

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Gastrointestinal Stromal Tumor (GIST) stained with CD117 Monoclonal Antibody (C117/370 + KIT/982 + KIT/983).

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - Background

This MAb recognizes a protein of 145kDa, identified as CD117/p145kit. It is found on a wide variety of tumor cells including follicular and papillary carcinoma of thyroid, adenocarcinomas from endometrium, lung, ovary, pancreas, and breast as well as malignant melanoma, endodermal sinus tumor, and small cell carcinoma. However, anti-CD117 has been particularly useful in differentiating gastrointestinal stromal tumors from Kaposi's sarcoma, tumors of smooth muscle origin, fibromatosis, and neural tumors of the GI tract. Anti-CD117 is also useful in recognizing myeloblasts in bone marrow biopsy and clot section.

CD117 / c-Kit (Marker for Gastrointestinal Stromal Tumors) Antibody - With BSA and Azide - References

Zafrani B, et. al. Histopathology 2000; 37(6), 536-545. | Harvey JM, et. al. Journal of Clinical Oncology 1999; 17(5), 1474-1481