

**c-Kit / CD117 Antibody (Cytoplasmic Domain)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS13899**

**Specification**

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**c-Kit / CD117 Antibody (Cytoplasmic Domain) - Product Information**

Application	IHC
Primary Accession	<a href="#">P10721</a>
Reactivity	Human, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	110kDa KDa

**c-Kit / CD117 Antibody (Cytoplasmic Domain) - 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

**Reconstitution & Storage**

Store at 2°C to 8°C degrees. Do not freeze.

**Precautions**

c-Kit / CD117 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

**c-Kit / CD117 Antibody (Cytoplasmic Domain) - 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)

#### **Volume**

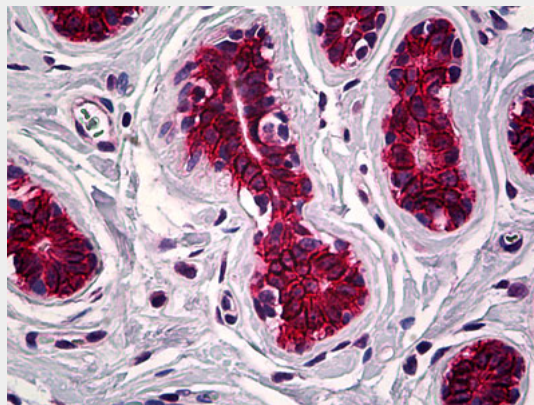
250 µl

### **c-Kit / CD117 Antibody (Cytoplasmic Domain) - 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](#)

### **c-Kit / CD117 Antibody (Cytoplasmic Domain) - Images**



Anti-c-Kit antibody IHC of human breast.

### **c-Kit / CD117 Antibody (Cytoplasmic Domain) - Background**

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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.

#### **c-Kit / CD117 Antibody (Cytoplasmic Domain) - References**

- Yarden Y., et al. EMBO J. 6:3341-3351(1987).  
Giebel L.B., et al. Oncogene 7:2207-2217(1992).  
Andre C., et al. Genomics 39:216-226(1997).  
Jin P., et al. Arthritis Res. Ther. 10:R73-R73(2008).  
Neumann I., et al. Pediatr. Blood Cancer 55:464-470(2010).