

FLT3 Antibody
Catalog # ASC11544**Specification**

FLT3 Antibody - Product Information

Application	WB, IF, E
Primary Accession	P36888
Other Accession	NP_004110 , 121114304
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	109 kDa KDa
Application Notes	FLT3 antibody can be used for detection of FLT3 by Western blot at 1 - 2 µg/mL. For immunofluorescence start at 20 µg/mL.

FLT3 Antibody - Additional Information

Gene ID 2322

Target/Specificity

FLT3; At least three isoforms of FLT3 are known to exist; this antibody will detect all isoforms.

Reconstitution & Storage

FLT3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

FLT3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

FLT3 Antibody - Protein Information**Name** FLT3**Synonyms** CD135, FLK2, STK1**Function**

Tyrosine-protein kinase that acts as a cell-surface receptor for the cytokine FLT3LG and regulates differentiation, proliferation and survival of hematopoietic progenitor cells and of dendritic cells. Promotes phosphorylation of SHC1 and AKT1, and activation of the downstream effector MTOR. Promotes activation of RAS signaling and phosphorylation of downstream kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation of FES, FER, PTPN6/SHP, PTPN11/SHP-2, PLCG1, and STAT5A and/or STAT5B. Activation of wild-type FLT3 causes only marginal activation of STAT5A or STAT5B. Mutations that cause constitutive kinase activity promote cell proliferation and resistance to apoptosis via the activation of multiple signaling pathways.

Cellular Location

Membrane; Single-pass type I membrane protein. Endoplasmic reticulum lumen.

Note=Constitutively activated mutant forms with internal tandem duplications are less efficiently transported to the cell surface and a significant proportion is retained in an immature form in the endoplasmic reticulum lumen. The activated kinase is rapidly targeted for degradation

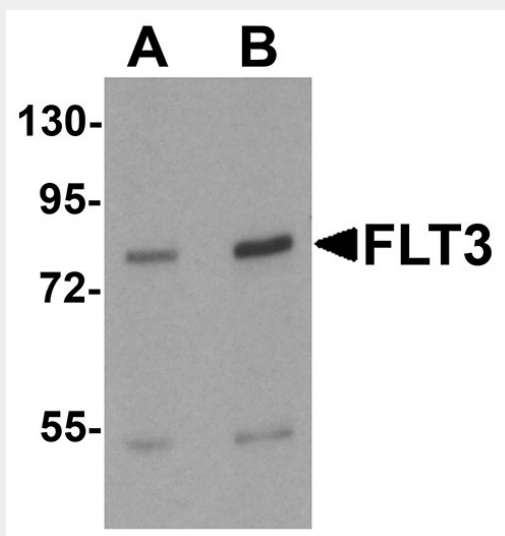
Tissue Location

Detected in bone marrow, in hematopoietic stem cells, in myeloid progenitor cells and in granulocyte/macrophage progenitor cells (at protein level). Detected in bone marrow, liver, thymus, spleen and lymph node, and at low levels in kidney and pancreas. Highly expressed in T-cell leukemia

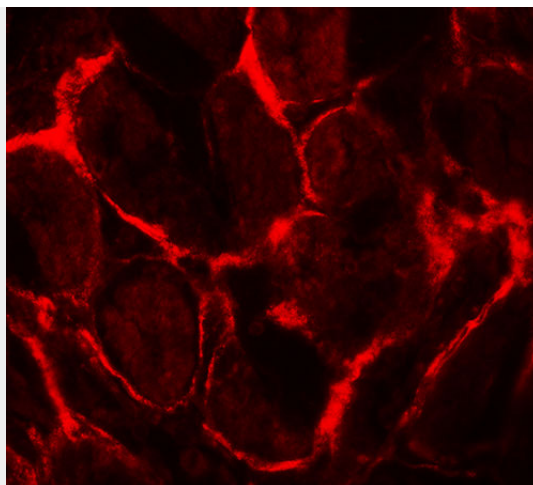
FLT3 Antibody - Protocols

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](#)

FLT3 Antibody - Images

Western blot analysis of FLT3 in 3T3 cell lysate with FLT3 antibody at (A) 1 and (B) 2 µg/mL.



Immunofluorescence of FLT3 in human kidney tissue with FLT3 antibody at 20 µg/mL.

FLT3 Antibody - Background

FLT3 Antibody: FLT3 is a member of the class III receptor tyrosine kinase family and its internal tandem duplication (ITD) is preferentially seen in acute myeloid leukemia and myelodysplastic syndrome among various hematological malignancies. It is a membrane bound glycosylated protein that is expressed primarily in early hematopoietic progenitor cells. Upon binding its ligand FL, FLT3 activates multiple signaling pathways including the PI3K/Akt and Ras/MEK/MAPK pathways. In cells expressing FLT3-ITD, these pathways are constitutively on, resulting in abnormal cell growth and anti-apoptotic activity.

FLT3 Antibody - References

Rosnet O, Schiff C, Pebusque MJ, et al. Human FLT3/FLK2 gene: cDNA cloning and expression in hematopoietic cells. *Blood* 1993; 82:1110-9

Yokoa S, Kiyoi H, Nakao M, et al. Internal tandem duplication of the FLT3 gene is preferentially seen in acute myeloid leukemia and myelodysplastic syndrome among various hematological malignancies. *Leukemia* 1997; 11:1605-9.

Takahashi S. Downstream molecular pathways of FLT3 in the pathogenesis of acute myeloid leukemia: biology and therapeutic implications. *J. Hematol. and Oncol.* 2011; 4:13.