


Product datasheet

Anti-c-Kit antibody ab46758

★★★★☆ 1 Abreviews 1 Image

Overview

<b>Product name</b>	Anti-c-Kit antibody
<b>Description</b>	Rabbit polyclonal to c-Kit
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Goat, Horse, Dog, Pig 
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 300 - 400 of Human c-Kit. Read Abcam's proprietary immunogen policy (Peptide available as <a href="#">ab101088</a> .)
<b>Positive control</b>	This antibody gave a positive signal in the following whole cell lysates: A431 treated with EGF; K562; MOLT4.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab46758** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 145 kDa (predicted molecular weight: 110 kDa).

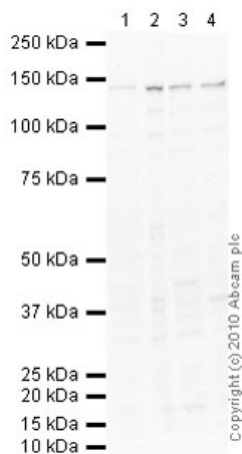
## Target

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<b>Function</b>	<p>Tyrosine-protein kinase that acts as 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.</p>
<b>Tissue specificity</b>	<p>Isoform 1 and isoform 2 are detected in spermatogonia and Leydig cells. Isoform 3 is detected in round spermatids, elongating spermatids and spermatozoa (at protein level). Widely expressed. Detected in the hematopoietic system, the gastrointestinal system, in melanocytes and in germ cells.</p>
<b>Involvement in disease</b>	<p>Piebald trait Gastrointestinal stromal tumor Testicular germ cell tumor Leukemia, acute myelogenous</p>
<b>Sequence similarities</b>	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 5 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.</p>
<b>Post-translational modifications</b>	<p>Ubiquitinated by SOCS6. KIT is rapidly ubiquitinated after autophosphorylation induced by KITLG/SCF binding, leading to internalization and degradation. Autophosphorylated on tyrosine residues. KITLG/SCF binding enhances autophosphorylation. Isoform 1 shows low levels of tyrosine phosphorylation in the absence of added KITLG/SCF (in vitro). Kinase activity is down-regulated by phosphorylation on serine residues by protein kinase C family members. Phosphorylation at Tyr-568 is required for interaction with PTPN11/SHP-2, CRK (isoform Crk-II) and members of the SRC tyrosine-protein kinase family. Phosphorylation at Tyr-570 is required for interaction with PTPN6/SHP-1. Phosphorylation at Tyr-703, Tyr-823 and Tyr-936 is important for interaction with GRB2. Phosphorylation at Tyr-721 is important for interaction with PIK3R1. Phosphorylation at Tyr-823 and Tyr-936 is important for interaction with GRB7.</p>
<b>Cellular localization</b>	<p>Cell membrane and Cytoplasm. Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head.</p>

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## Images



Western blot - Anti-c-Kit antibody (ab46758)

**All lanes** : Anti-c-Kit antibody (ab46758) at 1  $\mu\text{g/ml}$

**Lane 1** : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2** : A431 EGF Treated

**Lane 3** : K562 (Human erythromyeloblastoid leukemia cell line) Whole Cell Lysate

**Lane 4** : MOLT4 (Human acute lymphoblastic leukemia cell line) Whole Cell Lysate

Lysates/proteins at 10  $\mu\text{g}$  per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 110 kDa

**Observed band size:** 145 kDa

**Exposure time:** 5 minutes

C-Kit contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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