

Recombinant human c-Kit protein (Fc Chimera) ab88349

3 图像

描述	
产品名称	重组人c-Kit蛋白(Fc Chimera)
生物活性	Activity: The ED ₅₀ of ab88349 is typically 1-3 ug/ml as measured by its ability to neutralize SCF mediated proliferation using the human growth factor dependent M-07e cell line.
纯度	> 95 % SDS-PAGE.
表达系统	HEK 293 cells
Accession	<u>P10721</u>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	GSSQPSVSPGEPSPPSIHPGKSDLIVRVGDEIRLLCTDPGFV KWTFEIL DETNENKQNEWITEKAEATNTGKYTCTNKHGLSNSIYVFVRD PAKLFLV DRSLYGKEDNDTLVRCPLTDPEVTNYSLKGCQGKPLPKDLRF IPDPKA G IMIKSVKRAYHRLCLHCSVDQEGKSVLSEKFILKVRPAFAKAV PVVSV SK ASYLLREGEEFTVTCTIKDVSSSVYSTWKRENSQTKLQEKYN SWHH GDF NYERQATLTISSARVNDSGVFCYANNTFGSANVTTTTLEVVD KGF INIF PMINTTVFVNDGENVDLIVEYEAFPKPEHQWIYMNRTFTDK WE DYPKS ENESNIRYVSELHLTRLKGTEGGTYTFLVNSDVNAAIAFNV Y VNTKPE ILTYDRLVNGMLQCVAAGFPEPTIDWYFCPGTEQRCSASVLP VDVQTLN SSGPPFGKLVVQSSIDSSAFKHNGTVECKAYNDVGKTSAYF NFAFKGNN KEQIHPHTGSSNTKVDDKKVEPKSCDKTHTCPPCPAPELLG GPSVFLFPP KPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEV

HNAKTKPREE
QYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPI
EKTISKAKGQP
REPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVE
WESNGQPENNYK
TTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVM
HEALHNHYTQKSL SLSPGK

预测分子量	83 kDa including tags
氨基酸	23 to 520
额外的序列信息	Fused with the Fc region of Human IgG1 at the C-terminus.

技术指标

Our Abpromise guarantee covers the use of ab88349 in the following tested applications.	
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.	
应用	Functional Studies SDS-PAGE
形式	Lyophilized

制备和贮存

稳定性和存储	Shipped at 4°C. Store at +4°C. Avoid freeze / thaw cycle. Reconstitute for long term storage. Constituents: 1% Human serum albumin, 10% Trehalose This product is an active protein and may elicit a biological response in vivo, handle with caution.
复溶	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.

常规信息

功能	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.
组织特异性	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.

疾病相关

Piebald trait
Gastrointestinal stromal tumor
Testicular germ cell tumor
Leukemia, acute myelogenous

序列相似性

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.

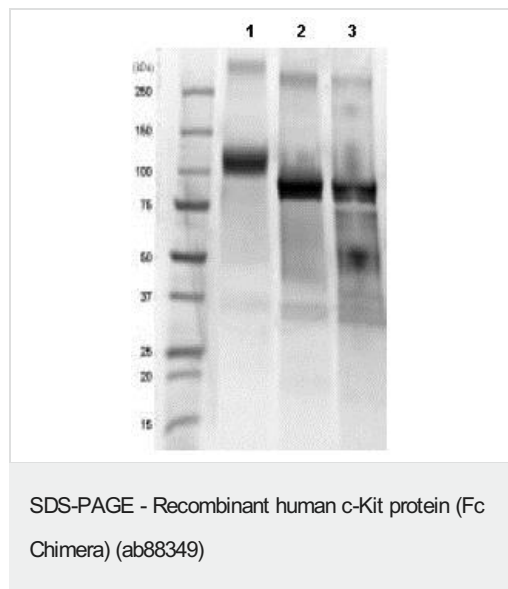
翻译后修饰

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.

细胞定位

Cell membrane and Cytoplasm. Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head.

图片



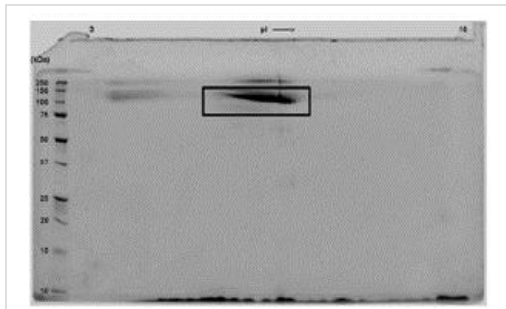
1D SDS-PAGE of ab88349 before and after treatment with glycosidases to remove oligosaccharides.

Lane 1: ab88349

Lane 2: ab88349 treated with PNGase F to remove potential N-linked glycans

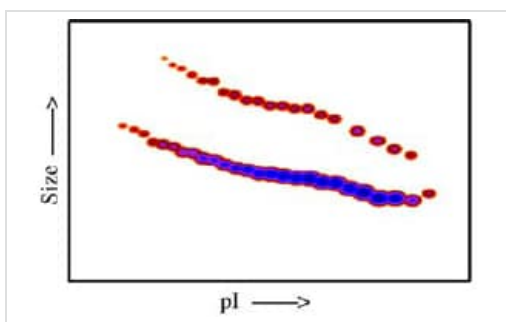
Lane 3: ab88349 treated with a glycosidase cocktail to remove potential N- and O-linked glycans.

Appearance of additional band at lower MWt after treatment with PNGase F indicates the presence of N-linked glycans. The subsequent drop in MWt after treatment with a glycosidase cocktail indicates the presence of O-linked glycans.



SDS-PAGE - Recombinant human c-Kit protein (Fc Chimera) (ab88349)

A sample of ab88349 without carrier protein was reduced and alkylated and focused on a 3-10 IPG strip then run on a 4-20% Tris-HCl 2D gel. 40 µg of protein was loaded. Spot trains indicate presence of multiple isoforms of ab88349.



Functional Studies - Recombinant human c-Kit protein (Fc Chimera) (ab88349)

Densitometry of protein isoforms visualised by 2-DE.

The densitometry scan demonstrates the purified human cell expressed protein exists in multiple isoforms, which differ according to their level of post-translational modification.

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