

Product datasheet

Recombinant Cat c-Kit protein ab97706

製品の概要

製品名	Recombinant Cat c-Kit protein
タンパク質長	Full length protein

製品の詳細

由来	Recombinant
由来	Yeast

アミノ酸配列

アクセッション番号 [P79169](#)

生物種 Cat

配列
 GLCRNRVTDD VKDVTCLVAN LPKDYKIALK
 YVPGMDVLPV HCWISVMVEQ LSVSLTDLLD
 KFSNISEGLS NYSIIDKLVK IVDDLVECVE
 GHSSENVKKS SKSPEPRLFT PEEFFRIFNR
 SIDAFKDLEM VASKTSECVV SSTLSPEKDS
 RVSVTKPFML PPVAASSLRN DSSSSNRKAT
 NPIEDSSIQW AVMALPACFS LVIGFAFGAF
 YWKKKQPNLT RTVENIQINE EDNEISMLQE
 KEREFAQEV

分子量 28 kDa

領域 27 to 274

特性

Our [Abpromise guarantee](#) covers the use of **ab97706** in the following tested applications.

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

アプリケーション SDS-PAGE

精製度 > 95 % SDS-PAGE.
 ab97706 is purified by ion-exchange chromatography.

製品の状態 Lyophilised

前処理および保存

保存方法および安定性

Shipped at 4°C. After reconstitution store at -20°C. Avoid freeze / thaw cycles.

Preservative: None

Constituents: 10% Trehalose, 1X PBS

再構成

Reconstitute with sterile phosphate-buffered saline containing at least 0.1% carrier protein.

関連情報

機能

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.

組織特異性

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.

関連疾患

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

配列類似性

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.

翻訳後修飾

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.

細胞内局在

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

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