

Recombinant human c-Kit (mutated D820Y) protein ab203535

2 图像

描述

产品名称	重组人c-Kit (mutated D820Y)蛋白
生物活性	8 nmol/min/mg
纯度	> 85 % Densitometry. Affinity purified.
表达系统	Baculovirus infected Sf9 cells
Accession	<u>P10721</u>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
预测分子量	75 kDa including tags
氨基酸	544 to 976
修饰	mutated D820Y
标签	GST tag N-Terminus
额外的序列信息	NM_000222

技术指标

Our **Abpromise guarantee** covers the use of **ab203535** 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	Liquid

制备和贮存

稳定性和存储	Shipped on Dry Ice. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.50 Constituents: 0.79% Tris HCl, 0.31% Glutathione, 0.87% Sodium chloride, 0.003% EDTA,
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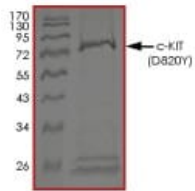
0.0038% DTT, 0.00174% PMSF, 25% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

常规信息

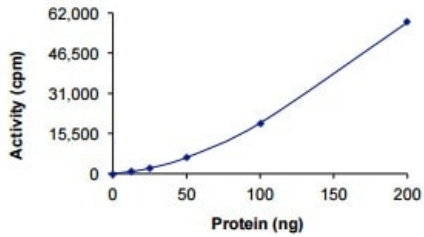
功能	<p>Tyrosine-protein kinase that acts as cell-surface receptor for the cytokine KITLG/SCF and plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. In response 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>
组织特异性	<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>
疾病相关	<p>Piebald trait Gastrointestinal stromal tumor Testicular germ cell tumor Leukemia, acute myelogenous</p>
序列相似性	<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>
翻译后修饰	<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>
细胞定位	<p>Cell membrane and Cytoplasm. Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head.</p>

图片



Analysis of the purity of ab203535 by densitometry.

SDS-PAGE - Recombinant human c-Kit (mutated D820Y) protein (ab203535)



Sample Kinase Activity Plot for determining the specific activity of ab203535.

Functional Studies - Recombinant human c-Kit (mutated D820Y) protein (ab203535)

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