

Recombinant Rat Kit Protein, C-His-tagged

Product Information

Cat	IMP-4339
Official Symbol	Kit
Product Overview	Recombinant rat KIT (Q63116) (Met1-Thr522) was expressed, fused with a polyhistidine tag at the C-terminus.
Description	<p><i>C-Kit is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). c-Kit contains 5 Ig-like C2-type (immunoglobulin-like) domains and 1 protein kinase domain. It belongs to the protein kinase superfamily, tyr protein kinase family, and CSF-1/PDGF receptor subfamily. C-Kit contains 5 Ig-like C2-type (immunoglobulin-like) domains and 1 protein kinase domain. C-Kit has tyrosine-protein kinase activity. Binding of the ligands leads to the autophosphorylation of KIT and its association with substrates such as phosphatidylinositol 3-kinase. Antibodies to c-Kit are widely used in immunohistochemistry to help distinguish particular types of tumor in histological tissue sections. It is used primarily in the diagnosis of GISTs. In GISTs, c-Kit staining is typically cytoplasmic, with stronger accentuation along the cell membranes. C-Kit antibodies can also be used in the diagnosis of mast cell tumors and in distinguishing seminomas from embryonal carcinomas. Mutations in the c-Kit gene are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukemia, and piebaldism. Defects in KIT are a cause of acute myelogenous leukemia (AML). AML is a malignant disease in which hematopoietic precursors are arrested in an early stage of development. Note=Somatic mutations that lead to constitutive activation of KIT are detected in AML patients.</i></p>
Expression System	HEK293
Species	Rat
Tag	C-His
Predicted N Terminal	Ser 25
Form	Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.
Molecular Mass	The recombinant rat KIT comprises 509 amino acids and predicts a molecular mass of 56.9 kDa. The apparent molecular mass of the recombinant protein is approximately 83 kDa in SDS-PAGE under reducing conditions due to glycosylation.
Protein length	Met1-Thr522
Endotoxin	< 1.0 EU/μg of the protein as determined by the LAL method

Purity

> 95 % as determined by SDS-PAGE

Storage

Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution

A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

SDS-PAGE