

CD117/c-kit Protein, Mouse (495a.a, HEK293, Fc)

Cat. No.:	HY-P78712
Synonyms:	CD117; SCFR; c-Kit; KIT
Species:	Mouse
Source:	HEK293
Accession:	P05532-2 (S25-T519)
Gene ID:	16590
Molecular Weight:	Approximately 110 kDa

PROPERTIES

Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human SCF at 2 µg/mL on an Nickel Coated plate can bind Mouse CD117. The EC ₅₀ is 103.5-437.3 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized a 0.22 µm filtered solution of PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The CD117/c-Kit protein is a tyrosine-protein kinase that serves as a cell-surface receptor for the cytokine KITLG/SCF. It plays a crucial role in regulating cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration, function, and melanogenesis. Upon binding to KITLG/SCF, CD117/c-Kit activates multiple signaling pathways, including PI3K/AKT, GRB2/RAS/RAF/MAPK, and STAT. This leads to the phosphorylation of various downstream effectors such as PIK3R1, PLCG1, SH2B2/APS, CBL, and transcription factors STAT1, STAT3, STAT5A, and STAT5B. Activation of PLCG1 results in the production of diacylglycerol and inositol 1,4,5-trisphosphate, important cellular signaling molecules. CD117/c-Kit signaling is regulated by protein phosphatases, rapid internalization, and degradation of the receptor. Additionally, it promotes the phosphorylation of PTPN6/SHP-1, PTPRU, and other proteins like CRK, LYN, SRC, and SHC1.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA