Proteins



Product Data Sheet



FLT3 Protein, Human (HEK293, His-Avi)

Cat. No.: HY-P78444

Synonyms: CD135; FLK2; STK-1; FLT-3

Species: Human Source: HEK293

Accession: P36888 (N27-N541)

Gene ID: 2322

Molecular Weight: 75-100 kDa

PROPERTIES

Biological Activity	Immobilized Human Human FLT3, His Tag at $0.5\mu g/ml$ ($100\mu l/Well$) on the plate. Dose response curve for Human FLT3 Ligand, hFc Tag with the EC ₅₀ of 46.3ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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

FLT3, a tyrosine-protein kinase, functions as a cell-surface receptor for the cytokine FLT3LG, exerting regulatory control over the differentiation, proliferation, and survival of hematopoietic progenitor cells and dendritic cells. This receptor facilitates the phosphorylation of various downstream effectors, including SHC1 and AKT1, and activates signaling cascades involving MTOR, RAS, MAPK1/ERK2, and/or MAPK3/ERK1. Moreover, it plays a pivotal role in the phosphorylation of FES, FER, PTPN6/SHP, PTPN11/SHP-2, PLCG1, and STAT5A and/or STAT5B. While wild-type FLT3 activation leads to modest STAT5A or STAT5B activation, mutations causing constitutive kinase activity result in heightened cell proliferation and resistance to apoptosis, underscoring its role in fostering aberrant signaling pathways.

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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

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