

FGFR1(FLT2) (Human), Active

Recombinant protein expressed in Sf9 cells

Cat# CY-SPF04

Lot No. P333-1
5 µg 0.1 µg/µl

Background:

FGFR1 (also known as FLT2) is a member of the Fibroblast Growth Factor Receptor family that constitute a family of four membrane-spanning tyrosine kinases (FGFR1-4) which serve as high-affinity receptors for 17 growth factors (FGF1-17). The FGF Receptor family plays an important role in multiple biological processes, including mesoderm induction and patterning, cell growth and migration, organ formation and bone growth (1). FGFR1 is alternatively spliced generating multiple splice variants that are differentially expressed during embryo development and in the adult body (2).

Product Description:

Recombinant human FGFR1 (399-822) was expressed by baculovirus in Sf9 cells using an N-terminal GST tag. The gene accession number is NM_023110.

Gene Aliases:

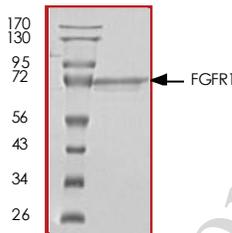
CEK, FLG, FLT2, KAL2, BFGFR, C-FGR, CD331, N-SAM

Formulation:

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.

Purity & Molecular Weight:

The purity was determined to be >90% by densitometry. Approx. MW 73kDa.



Storage:

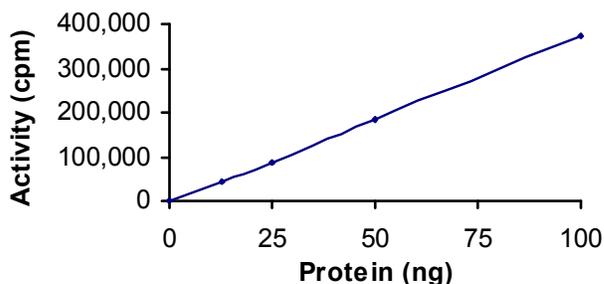
Store product at -70°C . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Stability:

1 year at -70°C from date of shipment.

**Specific Activity:**

The specific activity was determined to be 177 nmol /min/mg as per Activity Assay Protocol.

**Activity Assay Protocol:**

Assay activity of the kinase in a 25 μ L reaction consisting of 5 μ L of 5 X Kinase Assay Buffer, 10 μ L of 1 mg/ml the Substrate Solution, 5 μ L of diluted kinase and 5 μ L of 250 μ M ATP solution containing [γ - 32 P] ATP (0.167 μ Ci/ μ L). Start the reaction by adding the ATP solution. Incubate for 15 minutes at 30°C. Terminate the reaction by spotting 20 μ L of the reaction mixture onto phosphocellulose P81 paper. Air-dry the P81 paper and sequentially wash 4 times for approximately 10 minutes each in 1% phosphoric acid with constant gentle stirring. Count the P81 paper in a liquid scintillation counter.

Substrate Solution:

Poly (Glu:Tyr, 4:1) synthetic peptide substrate diluted in distilled H₂O to a final concentration of 1 mg/ml.

5 X Kinase Assay Buffer:

25mM MOPS pH 7.2, 12.5mM β -glycerol-phosphate, 20mM MgCl₂, 12.5mM MnCl₂, 5mM EGTA, 2mM EDTA. Add 0.25mM DTT to Kinase Assay Buffer prior to use.

References:

- 1.Xu, X. et al: Fibroblast growth factor receptors (FGFRs) and their roles in limb development. Cell Tissue Res. 1999 Apr;296(1):33-43.
- 2.Groth, C. et al: The structure and function of vertebrate fibroblast growth factor receptor 1. Int J Dev Biol. 2002;46(4):393-400.

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