Data Sheet (Cat.No.TMPY-01228)

TargetMol

FGFR2 Protein, Human, Recombinant (aa 1-377, His)

General Information

Synonyms:	TK14;CEK3;BEK;BBDS;CD332;TK25;KGFR;BFR-1;fibroblast growth factor receptor 2;ECT1;CFD1;K-SAM;JWS
Protein Construction:	A DNA sequence encoding the human FGFR2 (NP_000132.3) extracellular domain (Met 1-Glu 377) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Arg 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P21802-1
Molecular Weight:	41 kDa (predicted); 65-75 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to inhibit FGF acidic dependent proliferation of Balb/c3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.2-1 μg/mL.
Purity:	≥ 97 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

FGFR2, also known as CD332, belongs to the fibroblast growth factor receptor subfamily where amino acid sequence is highly conserved between members and throughout evolution. FGFR2 acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation,

migration and apoptosis, and in the regulation of embryonic development. It is required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. FGFR2 plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. It also promotes cell proliferation in keratinocytes and imature osteoblasts, but promotes apoptosis in differentiated osteoblasts. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal CD332 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1. Defects in CD3322 are the cause of Crouzon syndrome, Jackson-Weiss syndrome, Apert syndrome, Pfeiffer syndrome, Beare-Stevenson cutis gyrata syndrome, familial scaphocephaly syndrome, lacrimo-auriculo-dento-digital syndrome and Antley-Bixler syndrome without genital anomalies or disordered steroidogenesis.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

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