HB220525

Recombinant Mouse Fibroblast Growth Factor 21 (Mouse FGF-21)

Product Information

Product Name	Cat#	Size
Recombinant Mouse Fibroblast Growth Factor 21 (Mouse FGF-21)	91323ES08	5 μg
	91323ES60	100 μg
	91323ES76	500 μg

Product Description

Fibroblast growth factor 21 (FGF-21) is a member of the FGF gene family. Based on its structure, FGF-21 is further classified into a subfamily of FGFs along with FGF-19 and -23. At the amino acid sequence level, mature mouse FGF-21 is 81% and 92% identical to mature human and rat FGF-21, respectively. In comparison to other FGF subfamilies, a heparin-binding domain is uniquely absent in FGF-19 subfamily members. Lack of this domain confers endocrine function to FGF-19 members and enables them to freely diffuse within tissues and accumulate in the circulatory system. The biological activity of FGF-21 requires binding to Klotho beta, a co-receptor that is in complex with cell surface FGF receptors (FGF R). Binding of FGF-21 to Klotho beta facilitates FGF R activation and autophosphorylation resulting in the initiation of multiple downstream signaling cascades. FGF-21 cannot independently bind to FGF Rs, thus its effects are restricted to target tissues that express Klotho beta. FGF-21 functions as a physiological regulator of cellular metabolism, including glucose uptake in adipocytes and cellular sensitivity to insulin. FGF-21 is basally expressed in the pancreas, thymus, and liver, as well as in adipose tissue. Local and systemic metabolic stress has been shown to induce expression of FGF-21 in the liver, muscles, and fat. Modulation of FGF-21 expression is associated with a number of metabolic disorders, including obesity and diabetes.

Product Properties

Synonyms	FGF21; FGF-21; fibroblast growth factor 21
Accession	Q9JJN1
GeneID	56636
Source	E.coli-derived Mouse FGF-21, Ala29-Ser210.
Molecular Weight	Approximately 19.9 kDa.
AA Sequence	AYPIPDSSPL LQFGGQVRQR YLYTDDDQDT EAHLEIREDG TVVGAAHRSP ESLLELKALK PGVIQILGVK ASRFLCQQPD GALYGSPHFD PEACSFRELL LEDGYNVYQS EAHGLPLRLP QKDSPNQDAT SWGPVRFLPM PGLLHEPQDQ AGFLPPEPPD VGSSDPLSMV EPLQGRSPSY AS
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED50 as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 μg/ml, corresponding to a specific activity of > 2.0 × 103 IU/mg in the presence of 5 μg/ml of rMuKlotho-β and 10 μg/ml of heparin. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1μg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 3 × PBS, pH 7.4.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20℃ to -80℃ for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!