



Recombinant Protein Technical Manual

Recombinant Human FGF21 Protein (His Tag)

RPES3997

Product Data:

Product SKU: RPES3997

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q9NSA1

Protein Information:

Molecular Mass: 21.7 kDa

AP Molecular Mass: 23 kDa

Tag: N-6His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM Tris, 100mM NaCl, 2mM EDTA, pH9.0 .

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Fibroblast Growth Factor 21; FGF-21; FGF21

Immunogen Information:

Sequence: His29-Ser209

Background:

Fibroblast Growth Factor 21 (FGF21) is a growth factor that belongs to the FGF family. FGF family proteins play a central role during prenatal development and postnatal growth and regeneration of many tissues, by promoting cellular proliferation and differentiation. FGF21 is a potent activator of glucose uptake on adipocytes, protects animal from diet-induced obesity when overexpression in transgenic mice, and lower blood glucose and triglyceride levels when therapeutically administered to diabetic rodents. FGF21 is produced by hepatocytes in response to free fatty acid stimulation of a PPAR α /RXR dimeric complex. This situation occurs clinically during starvation, or following the ingestion of a highly-fat/low-carbohydrate diet. Upon FGF21 secretion, white adipose tissue is induced to release free fatty acids from triglyceride stores. Once free fatty acids reach hepatocytes, they are oxidized and reduced to acetyl-CoA. The acetyl-CoA is recombined into 4-carbon ketone bodies, released, and transported to peripheral tissue for TCA processing and energy generation.