

PRODUCT DATA SHEET

AG-40A-0126Y 08-Sep-2015

FGF-23 (R179Q Mutant) (human) (rec.) (His)

[Fibroblast Growth Factor 23; Tumor-derived Hypophosphatemia-inducing Factor]

AG-40A-0126Y-C010 10 μg

Source/Host HEK 293 cells

MW ~30kDa (SDS-PAGE)

Sequence Signal peptide and human FGF23 (aa 1-251) are fused at the C-terminus to a His-tag.

Handling / Storage

Shipping BLUE ICE
Short Term Storage +4°C
Long Term Storage -20°C

After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.

Use / Stability

Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.

MSDS available at www.adipogen.com or upon request.

Product Specifications

Biological Activity Activates ERK and FRS2α phosphorylation in Klotho expressing cells.

Purity ≥90% (SDS-PAGE)

Formulation Lyophilized. Contains PBS. Concentration 0.1mg/ml after reconstitution.

Reconstitution Reconstitute with 100µl sterile water.

Endotoxin Content <0.01EU/µg purified protein (LAL test; Lonza).

Other Product Data

UniProt link Q9GZV9: FGF-23 (human)

Product Description

FGF-23 (Fibroblast growth factor 23) is a regulator of phosphate homeostasis. It upregulates EGR1 expression in the presence of KLBy. Acts directly on the parathyroid to decrease PTH secretion. Regulates the vitamin-D metabolism. Negatively regulates osteoblast differentiation and matrix mineralization. Defects in FGF-23 are the cause of autosomal dominant hypophosphataemic rickets (ADHR) and of hyperphosphatemic familial tumoral calcinosis (HFTC). The R179Q mutant is resistant to degradation by the endopeptidase PHEX.

WARNING: Intended for research use only. This product is not intended or approved for human, diagnostics, therapeutic or veterinary use. Use of this product for human or animal testing is extremely hazardous and may result in disease, severe injury, or death. MATERIAL SAFETY DATA: Review the complete Material Safety Data Sheet before use.

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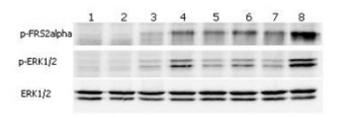


Figure 1: ERK phosphorylation and FRS2α phosphorylation in Klotho expressing cells induced by FGF23-His (Prod. No. AG-40A-0114Y) and FGF23-His (R179Q mutant) (Prod. No. AG-40A-0126Y).

Klotho expressing HEK293EBNA cells were serum starved for 16h. They were then stimulated with recombinant hFGF23-His, hFGF23-His (R179Q) and FGF-b for 10min respectively. FGF-b (100ng/ml) was used as positive control. The cell lysate was subjected to do immunoblotting with antibodies against pFRS2α, pERK1/2 and total ERK1/2.

Lane 1: Mock (non-treated) | Lane 2: Klotho + hFGF23-His (wt) 0.1µg/ml

Lane 3: Klotho + hFGF23-His (wt) 0.3µg/ml | Lane 4: Klotho + hFGF23-His (wt) 1µg/ml

Lane 5: Klotho + hFGF23-His (R179Q) 0.1µg/ml | Lane 6: Klotho + hFGF23-His (R179Q) 0.3µg/ml

Lane 7: Klotho + hFGF23-His (R179Q) 1µg/ml | Lane 8: Klotho + FGF-b 100ng/ml

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