

Product datasheet

Recombinant human FGF 23 protein ab241973

1 Image

Description

<b>Product name</b>	Recombinant human FGF 23 protein	
<b>Biological activity</b>	Fully biologically active when compared to standard. 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 >2.0x10 <sup>3</sup> IU/mg in the presence of 0.3 ug/ml of rMuKlotho and 10 µg/ml of heparin.	
<b>Purity</b>	> 95 % SDS-PAGE.	
<b>Endotoxin level</b>	< 1.000 Eu/µg	
<b>Expression system</b>	Escherichia coli	
<b>Accession</b>	<a href="#">Q9GZV9</a>	
<b>Protein length</b>	Full length protein	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	YPNASPLLGSSWGGLIHLTYTARNSYHLQIHKNGHVDGA PHQTIYSALM IRSEDAGFVVITGVMSRRYLCMDFRGNIFGSHYFDPENCR FQHQTLENGY DVYHSPQYHFLVSLGRAKRAFLPGMNPPPYSQFLSRRNEI PLIHFNTPIP RRHTRSAEDDSERDPLNVLKPRARMTPAPASCSQELPS AEDNSPMASDPL GVVRGGRVNTHAGGTGPEGCRPFAKFI	
<b>Predicted molecular weight</b>	25 kDa	
<b>Amino acids</b>	25 to 251	
<b>Additional sequence information</b>	Full-length mature chain lacking the signal peptide.	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab241973** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

SDS-PAGE

**Form** Lyophilized

## Preparation and Storage

---

**Stability and Storage** Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Constituent: PBS

0.2 µm filtered

This product is an active protein and may elicit a biological response in vivo, handle with caution.

## 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.

## General Info

---

### Function

Regulator of phosphate homeostasis. Inhibits renal tubular phosphate transport by reducing SLC34A1 levels. Upregulates EGR1 expression in the presence of KL (By similarity). Acts directly on the parathyroid to decrease PTH secretion (By similarity). Regulator of vitamin-D metabolism. Negatively regulates osteoblast differentiation and matrix mineralization.

### Tissue specificity

Expressed in osteogenic cells particularly during phases of active bone remodeling. In adult trabecular bone, expressed in osteocytes and flattened bone-lining cells (inactive osteoblasts).

### Involvement in disease

Defects in FGF23 are the cause of autosomal dominant hypophosphataemic rickets (ADHR) [MIM:193100]. ADHR is characterized by low serum phosphorus concentrations, rickets, osteomalacia, leg deformities, short stature, bone pain and dental abscesses.

Defects in FGF23 are a cause of hyperphosphatemic familial tumoral calcinosis (HFTC) [MIM:211900]. HFTC is a severe autosomal recessive metabolic disorder that manifests with hyperphosphatemia and massive calcium deposits in the skin and subcutaneous tissues.

### Sequence similarities

Belongs to the heparin-binding growth factors family.

### Post-translational modifications

Following secretion this protein is inactivated by cleavage into a N-terminal fragment and a C-terminal fragment. The processing is effected by proprotein convertases.

O-glycosylated by GALT3. Glycosylation is necessary for secretion; it blocks processing by proprotein convertases when the O-glycan is alpha 2,6-sialylated. Competition between proprotein convertase cleavage and block of cleavage by O-glycosylation determines the level of secreted active FGF23.

### Cellular localization

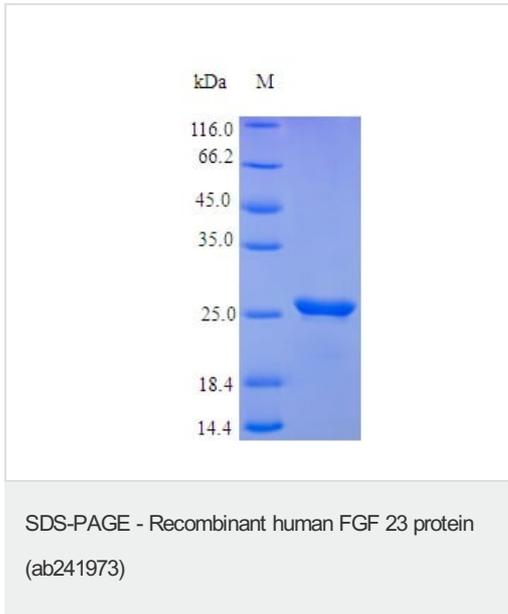
Secreted. Secretion is dependent on O-glycosylation.

---

## Images

---

ab241973 analyzed by SDS-PAGE.



**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors