41295. Human Fibroblast Growth Factor 23 (R179Q)

Origin:	Recombinant	Cat. No.:	41295
Tag:	N-terminal 6xHis	Size:	0.1 mg
Source:	E.coli	Purity:	>90%
Other names:	FGF23	Species:	Human

Description

Expressed in E.coli with total 271 AA. Mw: 30.4 KDa (calculated).
N-terminal 6xHis-tag, EK and TEV cleavage site, 44 extra AA (highlighted). Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

FGF-23 is a bone-derived hormone that acts in the kidney to regulate phosphate homeostasis and vitamin D metabolism. The signaling receptor for FGF-23, α Klotho-FGFR1 (IIIc) complex, is an essential regulator of the renal sodium phosphate co-transporter and key vitamin D-metabolizing enzymes CYP27B1 and CYP24A1. Mature human FGF-23 contains an atypical (very low affinity) heparin binding site (aa 134-162), a proteolytic cleavage site (Arg179-Ser180), and multiple O-linked glycosylation sites with Thr178 being of particular importance. O-linked glycosylation at Thr178 blocks the cleavage of FGF-23, thereby preventing loss of FGF-23 activity. This recombinant human FGF23 bears mutation at 179th aa from arginine to glutamine preventing proteolytic cleavage.

Amino Acid Sequence

MRGSHHHHHHGMASMTGGQQMGRDLYDDDDKDRWGSENLYFQGAYPNASPLLGSSWGGLIH
LYTATARNSYHLQIHKNGHVDGAPHQTIYSALMIRSEDAGFVVITGVMSRRYLCMDFRGNIFGSHYF
DPENCRFQHQTLENGYDVYHSPQYHFLVSLGRAKRAFLPGMNPPPYSQFLSRRNEIPLIHFNTPIPRRH
TQSAEDDSERDPLNVLKPRARMTPAPASCSQELPSAEDNSPMASDPLGVVRGGRVNTHAGGTGP
EGCRPFAKFI

Applications: Standard ELISA test, Western Blot.

Formulation: Lyophilized at 1 mg/mL in 50mM Tris, 300mM NaCl, 400mM arginine.

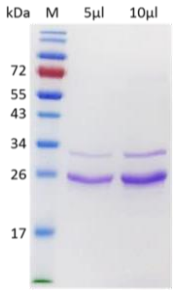
Reconstitution: Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

Storage: Store lyophilized protein at –20°C. Aliquot reconstituted protein and store at –80°C. Avoid repeated freezing /thawing cycles.

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.

SDS-PAGE gel



ImmunoDiagnostics Limited. 5/F, 11W, Hong Kong Science Park, Hong Kong
Website: www.immunodiagnostics.com.hk.; Email: info@immunodiagnostics.com.hk; Tel: +852 3502 2780