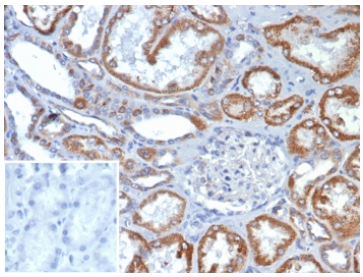
Fibroblast Growth Factor 23 Antibody / FGF23 [clone FGF23/132] (V4248)

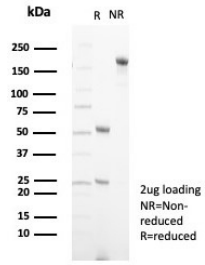
Catalog No.	Formulation	Size
V4248-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4248-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4248SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG
Clone Name	FGF23/132
Purity	Protein A/G affinity
UniProt	Q9GZV9
Localization	Secreted (extracellular)
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Fibroblast Growth Factor 23 antibody is available for research use only.



IHC staining of FFPE human kidney tissue with Fibroblast Growth Factor 23 antibody at 2ug/ml. Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Fibroblast Growth Factor 23 antibody (clone FGF23/132) as confirmation of integrity and purity.

Description

Fibroblast Growth Factor 23 antibody detects FGF23, a hormone-like member of the fibroblast growth factor family that regulates phosphate metabolism and vitamin D homeostasis. The UniProt recommended name is Fibroblast growth factor 23 (FGF23). This secreted protein acts primarily in the kidney to reduce phosphate reabsorption and suppress 1-alpha-hydroxylase activity, thereby lowering circulating levels of active vitamin D (1,25-dihydroxyvitamin D3).

Functionally, Fibroblast Growth Factor 23 antibody identifies a 251-amino-acid glycoprotein secreted mainly by osteocytes and osteoblasts. FGF23 functions through binding to fibroblast growth factor receptors (FGFRs), with the co-receptor Klotho conferring tissue specificity to its signaling. This endocrine mechanism maintains phosphate balance by decreasing expression of renal sodium-phosphate cotransporters (NaPi-IIa and NaPi-IIc). It also limits intestinal phosphate absorption indirectly through suppression of vitamin D synthesis. Together, these actions help coordinate mineral metabolism between bone and kidney.

The FGF23 gene is located on chromosome 12p13.32 and is predominantly expressed in bone, with additional expression detected in brain and thymus. FGF23 secretion is tightly regulated by dietary phosphate intake, parathyroid hormone levels, and local bone mineralization status. Proteolytic processing by furin and related convertases controls its bioactive form. The mature hormone circulates as an intact molecule or as inactive fragments, depending on cleavage efficiency and post-translational modifications.

Pathologically, abnormal FGF23 activity underlies several human disorders of phosphate homeostasis. Excessive FGF23 secretion causes hypophosphatemic rickets and osteomalacia, including X-linked hypophosphatemia (XLH), autosomal dominant hypophosphatemic rickets, and tumor-induced osteomalacia. Conversely, loss-of-function mutations or impaired secretion lead to hyperphosphatemia and soft tissue calcification, as seen in familial tumoral calcinosis. Elevated serum FGF23 levels are also associated with chronic kidney disease and cardiovascular complications. Research using FGF23 antibody supports studies in renal physiology, bone biology, and metabolic bone disease.

Fibroblast Growth Factor 23 antibody is validated for use in relevant research applications to detect FGF23 expression and study phosphate metabolism and endocrine bone signaling. NSJ Bioreagents provides FGF23 antibody reagents optimized for bone, renal, and endocrine research applications.

Application Notes

Optimal dilution of the Fibroblast Growth Factor 23 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the Fibroblast Growth Factor 23 antibody.

Storage

Aliquot the Fibroblast Growth Factor 23 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.