abcam

Product datasheet

Anti-FGF 23 antibody ab56326

10 References 2 Images

Overview

Product name	Anti-FGF 23 antibody
Description	Goat polyclonal to FGF 23
Host species	Goat
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide: C-RHTRSAEDDSERD , corresponding to internal sequence amino acids 176-188 of Human FGF 23 Run BLAST with Run BLAST with
Positive control	Human Brain (Hippocampus) lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab56326 in the following tested applications.

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

Application	Abreviews	Notes
WB		Use a concentration of 0.3 - 1 µg/ml. Detects a band of approximately 27 kDa (predicted molecular weight: 28 kDa). A 1 hour primary incubation is recommended for this product. An additional band of unknown identity was also consistently observed at 37kDa. This band was successfully blocked by incubation with the immunising peptide.
ICC/IF		Use a concentration of 1 µg/ml.

Target

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).

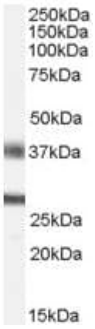
Involvement in disease Defects in FGF23 are the cause of autosomal dominant hypophosphataemic rickets (ADHR) [MIM:193100]. ADHR is characterized by low serum phosphorus concentrations, rickets, osteomalacia, leg deformities, short stature, bone pain and dental abscesses.
Defects in FGF23 are a cause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

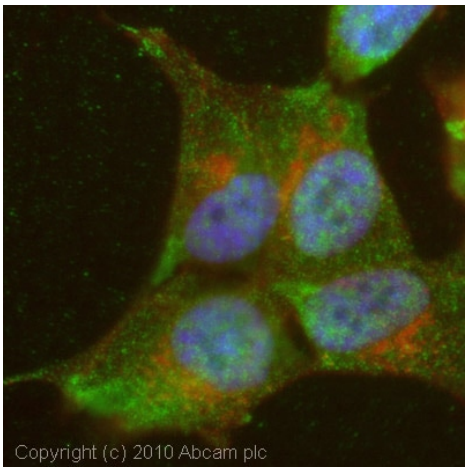


Western blot - Anti-FGF 23 antibody (ab56326)

Anti-FGF 23 antibody (ab56326) at 0.5 µg/ml + Human Brain (Hippocampus) lysate (35µg protein in RIPA buffer)

Predicted band size: 28 kDa
Observed band size: 27 kDa
Additional bands at: 37 kDa. We are unsure as to the identity of these extra bands.

Primary incubation was 1 hour. Detected by chemiluminescence.



Immunocytochemistry/ Immunofluorescence - Anti-FGF 23 antibody (ab56326)

ICC/IF image of ab56326 stained SHSY5Y cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal donkey serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab56326, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 donkey anti-goat IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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