

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FGF-22 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) FGF-basic, rhFGF-3, -4, -5, -6, -7, -9, -10, -11, -12, -13, -16, -17, -18, -19, -20, -21, -23, recombinant mouse (rm) FGF-
Source	Monoclonal Mouse IgG _{2A} Clone # 435008
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human FGF-22 Thr23-Ser170 Accession # Q9HCT0
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Fibroblast growth factor-22 (FGF-22) is a 23 kDa, non-glycosylated member of the FGF-7 subfamily, from the FGF family of heparin-binding growth factors (1-3). The human FGF-22 precursor is 170 amino acids (aa) in length, and contains a 22 aa signal sequence with a 148 aa mature region (4-6). The mature region shows a centrally-placed, 120 aa β -trefoil region (aa 43-168) that is characteristic of all FGF family members. Human FGF-22 potentially has one alternate splice form. This isoform is 129 aa in length, and shows a 31 aa substitution for the first N-terminal 72 aa of the standard, or long, form (7). There is no information related to its possible function. Mature human FGF-22 is 86% aa identical to mouse FGF-22, with the mouse molecule showing a 9 aa deletion at the N-terminus (5). FGF-22 is synthesized by at least three cell types; keratinocytes, neurons, and skeletal muscle myotubes (4, 8, 9). In neurons and myotubes, FGF-22 is presumed to function as an organizer of the presynaptic apparatus. Expressed by postsynaptic (or target) cells, FGF-22 is believed to bind to FGF R2b on the surface of innervating processes, resulting in synaptic vesicle clustering, organization, and neurite branching (8, 10). Although FGF-22 is assumed to be secreted, little can be found in expressing cell culture media. Presumably, it is bound to 34 kDa FGF-BP1, which is a molecule described as typically associated with cell membrane proteoglycans (6, 11). Thus, following secretion, FGF-22 could quickly be immobilized by FGF-BP1, only to be released at a later time, or aided by FGF-BP1 in its interaction with FGF R2b (6, 10, 11).

PRODUCT SPECIFIC NOTICES

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