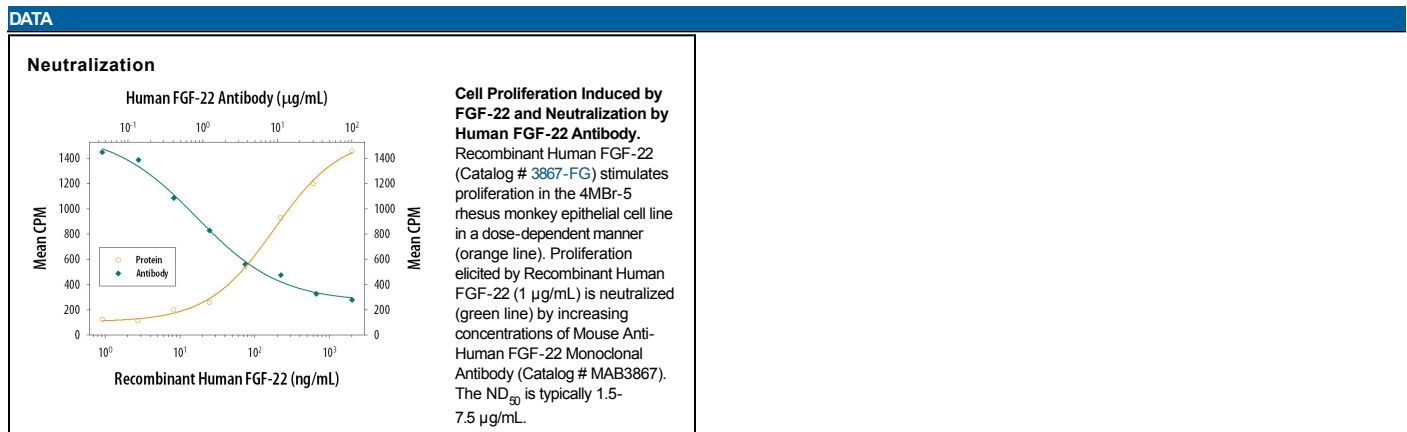


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human FGF-22 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) FGF-basic, rhFGF-3, -4, -5, -6, -7, -9, -10, -11, -12, -13, -16, -17, -18, -19, -20, -21, -23, recombinant mouse (rm) FGF-basic, rmFGF-8C, or -15 is observed.
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
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human FGF-22 (Catalog # 3867-FG)
Neutralization	Measured by its ability to neutralize FGF-22-induced proliferation in the 4MBr-5 rhesus monkey epithelial cell line. The Neutralization Dose (ND ₅₀) is typically 1.5-7.5 µg/mL in the presence of 1 µg/mL Recombinant Human FGF-22.	



PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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).

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