

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FGF-20 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) FGF-3, -4, -5, -6, -7, -9, -10, -11, -12, -16, -17, -18, -19, -23, recombinant mouse FGF-8b, -8c, -15, -23, rhFGF acidic, or rhFGF basic is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 272317
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human FGF-20 Met1-Thr211 Accession # Q9NP95
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

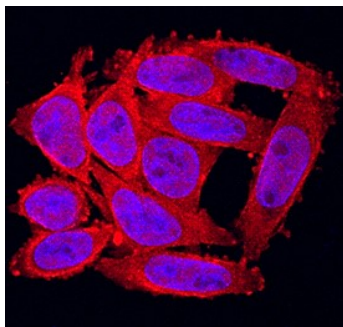
APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human FGF-20 (Catalog # 2547-FG)
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



FGF-20 in SW480 Human Cell Line.
FGF-20 was detected in immersion fixed SW480 human colorectal adenocarcinoma cell line using Rat Anti-Human FGF-20 Monoclonal Antibody (Catalog # MAB2547) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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 20 (FGF-20) is a member of the FGF gene family, which currently contains 22 members. Based on its structure, it is further classified as an FGF-9 subfamily member. All FGF family members are heparin-binding growth factors with a 120 amino acid (aa) core FGF domain that exhibits a β -trefoil structure (1). The cDNA of FGF-20 predicts a 211 aa polypeptide without a canonical signal peptide sequence, a feature shared with other members of this subfamily (2-4). Nevertheless, it is secreted with a molecular weight of 27 kDa (2-4). FGF-20 is known to bind to heparin (4). No alternate splice forms have been reported. However, three amino acid polymorphisms are known, and single nucleotide polymorphisms in noncoding regions that may effect expression show a strong correlation with a risk of developing Parkinson's disease (5, 6). Human FGF-20 shows 98% aa identity to bovine FGF-20 and 95% aa identity to both rat and mouse FGF-20. Within the FGF-9 subfamily, FGF-20 is 69% and 63% aa identical to human FGF-9 and FGF-16, respectively. Human FGF-20 is reported to be promiscuous in its selection of receptors which include FGF R1c, FGF R2c, FGF R3b, FGF R3c and FGF R4 (4, 7, 8). FGF-20 is expressed a variety of cells, including dopaminergic neurons (2), fibroblasts, keratinocytes and breast epithelium (4), and multiple sites in the fetus (2, 7). Finally, the expression of FGF-20 and DKK-1 is regulated by β -catenin during development and tumorigenesis, implying that FGF-20 may play a role in the oncogenesis induced by the Wnt signaling pathway (9).

References:

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7. Lavine, K.J. *et al.* (2005) Dev. Cell **8**:85.
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