

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FGF-18 by direct ELISA.
Source	Monoclonal Mouse IgG _{2A} Clone # 91815
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived human FGF-18 protein Glu28-Ala207 Accession # O76093
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.

ELISA 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 18 (FGF-18) is a 20 kDa protein that plays an important role in skeletal development and bone homeostasis (1). Mature human FGF-18 shares 99% amino acid sequence identity with mouse and rat FGF-18 (2). It is expressed in embryonic somites and the neural fold (3), adult lung (2), cerebellar and hippocampal neurons (4), hair follicle root sheath cells (5), and osteogenic mesenchymal cells (6). FGF-18 binds to FGF R2c, FGF R3c (4, 7) as well as the Golgi protein GLG1 (8) and induces the proliferation of astrocytes and microglia, vascular endothelial cells, dermal fibroblasts, papilla cells, and keratinocytes (4, 5, 9). FGF-18 is required for normal skeletal development (6). It recruits osteoclasts and osteoblasts to the growth plate, promotes osteoclast formation and function, inhibits osteoblast differentiation, promotes skeletal vascularization, and induces chondrocyte hypertrophy and cartilage matrix formation (6, 7, 10, 11).

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