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FGF-13

Catalog # PVGS1160

Product Information

Primary Accession	Q92913
Species	Human
Sequence	Met1-Thr245
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	
Expression System	E. coli
Theoretical Molecular Weight	27.6 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 20 mM Tris, pH 8.5, 500 mM NaCl.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	2258
Other Names	Fibroblast growth factor 13, FGF-13, Fibroblast growth factor homologous factor 2, FHF-2, FGF13 (HGNC:3670), FHF2
Target Background	Fibroblast growth factor 13 (FGF13) is a new member of the fibroblast growth factor (FGF) family. They possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth, and invasion. FGF-13 was initially identified as FHF2 along with three other FHF factors, FHF1/FGF12, FHF3/FGF-11 and FHF4/FGF14 that comprise a unique intracellular FGF (iFGF) subfamily expressed throughout the developing and adult nervous system. Human FGF13 stimulated the phenotypic differentiation of cortical neurons. FGF13 interacts with voltage-gated sodium channel alpha subunit, and colocalizes at the nodes of Ranvier of dorsal root axons. The mechanism of action for FGF13 in neural development has not been described in detail.

Protein Information

Name	FGF13 (HGNC:3670)
Synonyms	FHF2
Function	Microtubule-binding protein which directly binds tubulin and is involved in both polymerization and stabilization of microtubules (By similarity). Through its action on microtubules, may participate in the refinement of axons by negatively regulating axonal and leading processes branching (By similarity). Plays a crucial role in neuron polarization and migration in the cerebral cortex and the hippocampus (By similarity). Regulates voltage-gated sodium channel transport and function (PubMed:15282281, PubMed:33245860, PubMed:36696443). May also play a role in MAPK signaling (By similarity). Required for the development of axonal initial segment-targeting inhibitory GABAergic synapses made by chandelier neurons (By similarity).
Cellular Location	[Isoform 1]: Nucleus [Isoform 3]: Cytoplasm. Nucleus [Isoform 5]: Cytoplasm {ECO:0000250|UniProtKB:P61329}. Nucleus {ECO:0000250|UniProtKB:P61329}
Tissue Location	Ubiquitously expressed. Predominantly expressed in the nervous system.