9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

FLRT3 Human, HEK

Fibronectin Leucine Rich Transmembrane Protein 3 Human Recombinant, HEK
RCP0864

Product Overview

Name	FLRT3 Human, HEK

Description

Fibronectin Leucine Rich Transmembrane Protein 3 Human Recombinant, HEK

Accession (Primary)	Q9NZU0

Synonyms

Fibronectin Leucine Rich Transmembrane Protein 3, Fibronectin-Like Domain, Containing Leucine-Rich Transmembrane Protein 3, HH21, Leucine-Rich Repeat, Transmembrane Protein FLRT3, KIAA1469.

Source

HEK293 Cells.

Physical Appearance

Sterile filtered colorless solution.

Formulation

FLRT3 protein solution (0.25mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

KSCPSVCRCD AGFIYCNDRF LTSIPTGIPE DATTLYLQNN QINNAGIPSD LKNLLKVERI YLYHNSLDEF PTNLPKYVKE LHLQENNIRT ITYDSLSKIP YLEELHLDDN SVSAVSIEEG AFRDSNYLRL LFLSRNHLST IPWGLPRTIE ELRLDDNRIS TISSPSLQGL TSLKRLVLDG NLLNNHGLGD KVFFNLVNLT ELSLVRNSLT AAPVNLPGTN LRKLYLQDNH INRVPPNAFS YLRQLYRLDM SNNNLSNLPQ GIFDDLDNIT QLILRNNPWY CGCKMKWVRD WLQSLPVKVN VRGLMCQAPE KVRGMAIKDL NAELFDCKDS GIVSTIQITT AIPNTVYPAQ GQWPAPVTKQ PDIKNPKLTK DHQTTGSPSR KTITITVKSV TSDTIHISWK LALPMTALRL SWLKLGHSPA FGSITETIVT GERSEYLVTA LEPDSPYKVC MVPMETSNLY LFDETPVCIE TETAPLRMYN PTTTLNREQE KEPYKNPNLP HHHHHH .

Biological Activity

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

>40%. Measured by the ability of the immobilized protein to support the adhesion of Neuro-2a neuroblast cells. When cells are added to human FLRT3 coated plates 5 ug/ml.

Background

Fibronectin leucine-rich transmembrane protein 3, commonly known as FLRT3, stands as a molecular architect in the intricate landscape of neural development. Its roles, initially discovered in the embryonic nervous system, have expanded to encompass various physiological and pathological processes in both the brain and beyond. This research endeavors to unravel the enigma of FLRT3 protein, exploring its structural intricacies, physiological functions, and its far-reaching implications in neurobiology, embryogenesis, and disease. By delving into FLRT3's multifaceted roles, scientists aim to decipher the underlying mechanisms that govern its diverse functions and explore potential therapeutic avenues in the realms of neuroscience and beyond. Structural Complexities of FLRT3: FLRT3 belongs to the FLRT family, characterized by extracellular leucine-rich repeats (LRRs) and a transmembrane domain. These structural motifs enable FLRT3 to participate in a myriad of interactions, including binding with cell adhesion molecules and guidance cues. Understanding the three-dimensional architecture of FLRT3 is fundamental for unraveling its molecular partnerships, biological activities, and its contributions to cell adhesion and signaling. Physiological Functions in Neural Development: In the developing nervous system, FLRT3 acts as a guidance molecule, steering growing axons and dendrites to their precise destinations. Through interactions with other cell surface receptors and ligands, FLRT3 modulates axon pathfinding, synapse formation, and neuronal migration. Its presence in growth cones and developing neural circuits underscores its significance in sculpting the intricate neural networks essential for proper brain function. Beyond Neural Development: Beyond its canonical roles in neurodevelopment, FLRT3 has emerged as a versatile player in various physiological processes. It participates in tissue morphogenesis, modulates cell adhesion, and influences immune responses. Recent studies have also implicated FLRT3 in cancer progression, highlighting its involvement in pathological conditions and making it a potential target for therapeutic interventions in cancer therapy. FLRT3 as a Therapeutic Target: The diverse roles of FLRT3 in neural development and diseases position it as an attractive target for therapeutic interventions. Modulating FLRT3 interactions offers novel avenues for neurological disorder treatments, including neurodevelopmental disorders and neurodegenerative diseases. Moreover, understanding FLRT3's involvement in cancer biology opens doors for innovative cancer therapies, making it a promising target for precision medicine approaches. FLRT3, with its intricate structural features and diverse functional roles, stands as a linchpin in the realms of neuroscience, embryogenesis, and disease. Its multifaceted contributions to neural development, tissue morphogenesis, and disease pathogenesis underscore its significance in both health and pathology. As researchers continue to unravel FLRT3′s complexities, they not only deepen our understanding of fundamental biological processes but also pave the way for groundbreaking discoveries in neuroscience and therapeutic interventions, ultimately shaping the future landscape of medicine and scientific inquiry.

Precautions

FLRT3 Human, HEK is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q9NZU0)

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Background

Fibronectin leucine-rich transmembrane protein 3, commonly known as FLRT3, stands as a molecular architect in the intricate landscape of neural development. Its roles, initially discovered in the embryonic nervous system, have expanded to encompass various physiological and pathological processes in both the brain and beyond. This research endeavors to unravel the enigma of FLRT3 protein, exploring its structural intricacies, physiological functions, and its far-reaching implications in neurobiology, embryogenesis, and disease. By delving into FLRT3's multifaceted roles, scientists aim to decipher the underlying mechanisms that govern its diverse functions and explore potential therapeutic avenues in the realms of neuroscience and beyond. Structural Complexities of FLRT3: FLRT3 belongs to the FLRT family, characterized by extracellular leucine-rich repeats (LRRs) and a transmembrane domain. These structural motifs enable FLRT3 to participate in a myriad of interactions, including binding with cell adhesion molecules and guidance cues. Understanding the three-dimensional architecture of FLRT3 is fundamental for unraveling its molecular partnerships, biological activities, and its contributions to cell adhesion and signaling. Physiological Functions in Neural Development: In the developing nervous system, FLRT3 acts as a guidance molecule, steering growing axons and dendrites to their precise destinations. Through interactions with other cell surface receptors and ligands, FLRT3 modulates axon pathfinding, synapse formation, and neuronal migration. Its presence in growth cones and developing neural circuits underscores its significance in sculpting the intricate neural networks essential for proper brain function. Beyond Neural Development: Beyond its canonical roles in neurodevelopment, FLRT3 has emerged as a versatile player in various physiological processes. It participates in tissue morphogenesis, modulates cell adhesion, and influences immune responses. Recent studies have also implicated FLRT3 in cancer progression, highlighting its involvement in pathological conditions and making it a potential target for therapeutic interventions in cancer therapy. FLRT3 as a Therapeutic Target: The diverse roles of FLRT3 in neural development and diseases position it as an attractive target for therapeutic interventions. Modulating FLRT3 interactions offers novel avenues for neurological disorder treatments, including neurodevelopmental disorders and neurodegenerative diseases. Moreover, understanding FLRT3's involvement in cancer biology opens doors for innovative cancer therapies, making it a promising target for precision medicine approaches. FLRT3, with its intricate structural features and diverse functional roles, stands as a linchpin in the realms of neuroscience, embryogenesis, and disease. Its multifaceted contributions to neural development, tissue morphogenesis, and disease pathogenesis underscore its significance in both health and pathology. As researchers continue to unravel FLRT3′s complexities, they not only deepen our understanding of fundamental biological processes but also pave the way for groundbreaking discoveries in neuroscience and therapeutic interventions, ultimately shaping the future landscape of medicine and scientific inquiry.

9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989