Human FLRT2 Protein (His Tag)

Catalog Number: **11296-H08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

KIAA0405; UNQ232/PRO265

Protein Construction:

A DNA sequence encoding the human FLRT2 (O43155) extracellular domain (Met 1-Ser 539) was expressed, with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of Neuro?2A mouse neuroblastoma cells. When cells are added to coated plates(5μg/mL, 100μL/well), approximately 50%-70% will adhere after 1 hour at 37℃.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Cys 36

Molecular Mass:

The secreted recombinant human FLRT2 comprises 515 amino acids and has a calculated molecular mass of 57.7 kDa. The apparent molecular mass of the recombinant protein is approximately 75 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

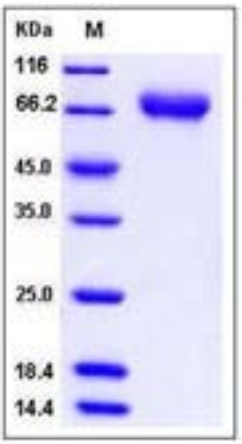
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fibronectin Leucine-Rich Transmembrane (FLRT) proteins are glycosylated membrane proteins expressed at the cell surface which localise in a homophilic manner to cell-cell contacts expressing the focal adhesion marker vinculin. FLRT1, FLRT2, and FLRT3, the three genes encode putative type I transmembrane proteins, each containing 10 leucine-rich repeats (LRR), a type III fibronectin (FN) domain, followed by the transmembrane region, and a short cytoplasmic tail. FLRT family members may function in cell adhesion and/or receptor signalling. Each member of the FLRT family has a distinct, highly regulated expression pattern, as was seen for the NLRR family. FLRT2 is expressed in a subset of the sclerotome, adjacent to the region that forms the syndetome, suggesting that interaction with FGF signalling may be a general property of FLRT proteins. All FLRTs can interact with FGFR1 and FLRTs can be induced by the activation of FGF signalling by FGF-2. FLRT proteins have a dual role, promoting FGF signalling and modulating homotypic cell adhesion. FLRT2 played critical roles in craniofacial development, and it was also present in the vomero-nasal organ, mandibular primodia, and the posterior aspects of the unfused and fused secondary palatal shelves.

References

1.Lacy SE, *et al.* (1999) Identification of FLRT1, FLRT2, and FLRT3: a novel family of transmembrane leucine-rich repeat proteins. Genomics. 62(3): 417-26. 2.Haines BP, *et al.* (2006) Regulated expression of FLRT genes implies a functional role in the regulation of FGF signalling during mouse development. Dev Biol. 297(1): 14-25. 3.Karaulanov EE, *et al.* (2006) A role for fibronectin-leucine-rich transmembrane cell-surface proteins in homotypic cell adhesion. EMBO Rep. 7(3): 283-90.