Recombinant Protein Technical Manual

Recombinant Human FLRT1 Protein (His Tag)(Active)

RPES1714

Product Data:

Product SKU: RPES1714

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q9NZU1

Protein Information:

Molecular Mass: 57 kDa

AP Molecular Mass: 65 kDa

Tag: C-His

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℃.

Purity: > 96 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Leucine-Rich Repeat Transmembrane Protein FLRT1; Fibronectin-Like Domain-Containing Leucine-Rich Transmembrane Protein 1; FLRT1

Immunogen Information:

Sequence: Met 1-Pro 524

Background:

The three fibronectin leucine-rich repeat transmembrane (FLRT) proteins contain 10 leucine-rich repeats (LRR), a type III fibronectin (FN) domain, followed by the transmembrane region, and a short cytoplasmic tail. FLRT1 is expressed in kidney and brain, which is a target for tyrosine phosphorylation mediated by FGFR1 and implicate a non-receptor Src family kinase (SFK). All FLRTs can interact with FGFR1 and FLRTs can be induced by the activation of FGF signalling by FGF-2. The phosphorylation state of FLRT1, which is itself FGFR1 dependent, may play a critical role in the potentiation of FGFR1 signalling and may also depend on a SFK-dependent phosphorylation mechanism acting via the FGFR. This is consistent with an 'in vivo' role for FLRT1 regulation of FGF signalling via SFKs. Furthermore, the phosphorylation-dependent futile cycle mechanism controlling FGFR1 signalling is concurrently crucial for regulation of FLRT1-mediated neurite outgrowth. FLRT1, FLRT2 and FLRT3 are members of the fibronectin leucine rich transmembrane protein (FLRT) family. They may function in cell adhesion and/or receptor signalling. Their protein structures resemble small leucine-rich proteoglycans found in the extracellular matrix. FLRT3 shares 55% amino acid sequence identity with FLRT1.