

## Recombinant Human FLRT1 Protein (His Tag)

**Catalog No.** PKSH031134

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

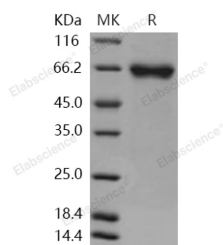
### Description

<b>Synonyms</b>	Leucine-Rich Repeat Transmembrane Protein FLRT1;Fibronectin-Like Domain-Containing Leucine-Rich Transmembrane Protein 1;FLRT1
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Pro 524
<b>Accession</b>	Q9NZU1-1
<b>Calculated Molecular Weight</b>	57.0 kDa
<b>Observed molecular weight</b>	65 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	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°C.

### Properties

<b>Purity</b>	> 96 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 96 % as determined by reducing SDS-PAGE.

### For Research Use Only

## 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.

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