# Recombinant Protein Technical Manual

## Recombinant Human ILRA/IL1RN Protein (Fc Tag)

**RPES1775**

## Product Data:

**Product SKU:** RPES1775

**Size:** 20µg

**Species**: Human

**Expression host:** HEK293 Cells

**Uniprot:** NP_776214.1

## Protein Information:

**Molecular Mass:** 43.8 kDa

**AP Molecular Mass:** 45-55 kDa

**Tag:** N-Fc

**Bio-activity:**

**Purity:** > 98 % 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 7.2

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

**Application:**

**Synonyms:** Interleukin Receptor Antagonist Protein; ILRN; ILra; IRAP; ICILRA; IL1 Inhibitor; Anakinra; IL1RN; IL1F3; IL1RA

## Immunogen Information:

**Sequence:** Arg 26-Glu 177

## Background:

Interleukin receptor antagonist (ILRA) also known as IL1RN is a member of the interleukin 1 cytokine family. This protein inhibits the activities of interleukin 1, alpha (IL1A) and interleukin 1, beta (IL1B), and modulates a variety of interleukin 1 related immune and inflammatory responses. A polymorphism of this protein encoding gene is reported to be associated with increased risk of osteoporotic fractures and gastric cancer. ILRA/IL1RN may inhibit the activity of IL by binding to its receptor and it has no IL like activity. Genetic variation in ILRA/IL1RN is associated with susceptibility to microvascular complications of diabetes type 4 (MVCD4). These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. Defects in ILRA/IL1RN are the cause of interleukin 1 receptor antagonist deficiency (DIRA) which is also known as deficiency of interleukin 1 receptor antagonist. Autoinflammatory diseases manifest inflammation without evidence of infection, high-titer autoantibodies, or autoreactive T-cells. DIRA is a rare, autosomal recessive, genetic autoinflammatory disease that results in sterile multifocal osteomyelitis, and pustulosis from birth.