Recombinant Human IL-1RA/IL1RN Protein

Catalog Number: PKSH031854

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

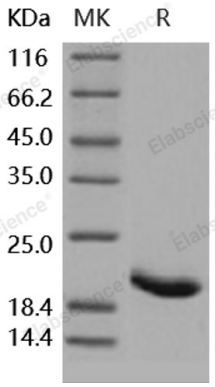
Description

Species	Human
Source	E.coli-derived Human IL-1RA/IL1RN protein Arg 26-Glu 177
Calculated MW	17.3 kDa
Observed MW	17.3 kDa
Accession	NP_776214.1
Bio-activity	1. Immobilized human IL1RA at 10 μg/ml (100 μl/well) can bind human IL1R2-Fc, The EC_{50} of human IL1R2-Fc is 0.04-0.1 μg/mL. 2. Immobilized human IL1RA at 10 μg/ml (100 μl/well) can bind human IL1R1-Fc, The EC_{50} of human IL1R1-Fc is 0.08-0.2 μg/mL. 3. Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells in the presence of 250pg/mL IL1a. The EC_{50} for this effect is typically 3-12 ng/mL.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. 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 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

Interleukin-1 receptor antagonist (IL-1RA) 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. IL-1RA/IL1RN may inhibit the activity of IL-1 by binding to its receptor and it has no IL-1 like activity. Genetic variation in IL-1RA/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 IL-1RA/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.

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