

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived
Ser21-Glu359, with a C-terminal 6-His tag
Accession # Q9NPH3

N-terminal Sequence Analysis Ser21

Predicted Molecular Mass 40 kDa

SPECIFICATIONS

SDS-PAGE 55-65 kDa, reducing conditions

Activity Measured by its ability to inhibit IL-1 α -induced IL-8 secretion in HepG2 human hepatocellular carcinoma cells. The ED₅₀ for this effect is 0.8-4 μ g/mL in the presence of 1 μ g/mL of recombinant human (rh) IL-1 R2 Fc Chimera and 50 pg/mL rhIL-1 α .

Endotoxin Level <0.10 EU per 1 μ g of the protein by the LAL method.

Purity >90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

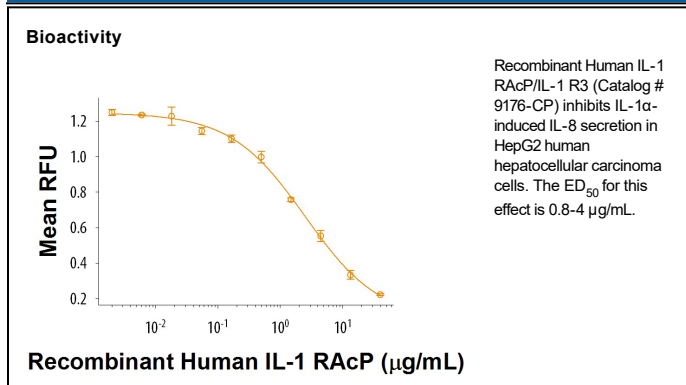
Reconstitution Reconstitute at 200 μ g/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

IL-1 Receptor Accessory Protein (IL-1 RAcP), also known as IL-1 R3, is a ubiquitously expressed 70-90 kDa member of the Interleukin-1 receptor family of proteins (1). It serves as a non-ligand-binding component of the receptors for IL-1 α , IL-1 β , IL-33, and IL-36 (2-4). It is a subunit of the functional signaling complex with IL-1 RI and associates with IL-1 RII in a non-signaling receptor complex (2, 5). In addition, it interacts with ST2/IL-1 R4 on mast cells and Th2 cells to create a functional IL-33 receptor complex (3). IL-1 RAcP also functions as a co-receptor for IL-36 α /IL-1F6, IL-36 β /IL-1F8, and IL-36 γ /IL-1F9 (4). Mature human IL-1 RAcP consists of a 347 amino acid (aa) extracellular domain (ECD) with three Ig-like domains, a 21 aa transmembrane segment, and a 182 aa cytoplasmic domain (2). Within the ECD, human IL-1 RAcP shares 86% aa sequence identity with mouse and rat IL-1 RAcP. Alternative splicing generates two secreted decoy receptor isoforms and an isoform with a substituted cytoplasmic domain (6-8). When present with soluble IL-1 RII, soluble IL-1 RAcP increases the IL-1 binding affinity of IL-1 RII more than 100-fold, thus neutralizing the effects of IL-1 (9). Neuronal IL-1 RAcP interacts trans-synaptically with PTP σ and can induce excitatory pre- and post-synaptic development (10).

References:

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