

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived			
	Human IL-18 R α (Glu20 - Arg329) Accession # Q13478	IEGRDID	Human IgG ₁ (Pro100 - Lys330)	6-His tag
	N-terminus		C-terminus	

N-terminal Sequence Glu20

Analysis

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 63 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	95-105 kDa, reducing conditions
Activity	Measured by its ability to inhibit the IL-18-induced response of KG-1 human acute myelogenous leukemia cells in the presence of soluble Recombinant Human IL-18 R β /IL-1 R7 Fc Chimera (Catalog # 118-AP). Approximately 5-15 μ g/mL of rhIL-18 R α /Fc will inhibit 50% of the biological response due to 40 ng/mL of rhIL-18 in the presence of 30 μ g/mL of rhIL-18 R β (AcPL)/Fc Chimera.
Endotoxin Level	<0.10 EU per 1 μ g of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in sterile 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. <ul style="list-style-type: none"> 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.

BACKGROUND

Interleukin 18 (IL-18) is a member of the IL-1 family of cytokines and shares numerous immuno-regulatory functions with IL-12. The functional IL-18 receptor complex is composed of two subunits designated IL-18 R α (also termed IL-1 R5 and IL-1 Rrp) and IL-18 R β (also termed IL-1 R7 and AcPL). Both IL-18 R α and IL-18 R β belong to the IL-1 receptor superfamily. Although IL-18 R by itself binds IL-18 with low-affinity and IL-18 R β does not bind IL-18 *in vitro*, co-expression of IL-18 R α and IL-18 R β is required for high-affinity binding and IL-18 responsiveness. Human IL-18 R cDNA encodes a 541 amino acid (aa) precursor type I membrane protein with a hydrophobic signal, an extracellular domain comprised of three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic region of approximately 200 aa residues. Human and mouse IL-18 R share 65% amino acid sequence homology. IL-18 R is widely expressed in numerous tissues including spleen, thymus, leukocyte, liver, lung, heart, small and large intestine, prostate and placenta.

References:

1. Parnet, P. *et al.* (1996) J. Biol. Chem. **271**:3967.
2. Torigoe, K. *et al.* (1997) J. Biol. Chem. **272**:25737.
3. Born, T.L. *et al.* (1998) J. Biol. Chem. **273**:29445.