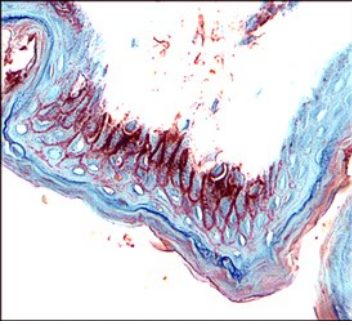
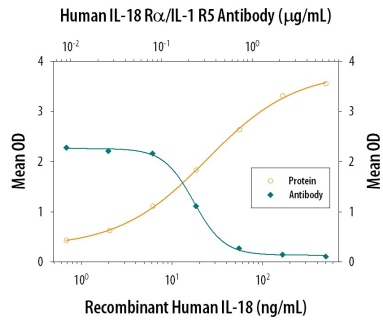


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human IL-18 R α /IL-1 R5 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant mouse IL-18 R α is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-18 R α /IL-1 R5 Glu20-Arg329 Accession # Q13478
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 μ g/mL	Recombinant Human IL-18 R α /IL-1 R5 Fc Chimera (Catalog # 816-LR)
Flow Cytometry	2.5 μ g/10 ⁶ cells	Human CD3 ⁺ T cells treated with PHA and Recombinant Human IL-2 (Catalog # 202-IL)
Immunohistochemistry	5-15 μ g/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize IL-18/IL-1F4-induced IFN- γ secretion in the KG-1 human acute myelogenous leukemia cell line. The Neutralization Dose (ND ₅₀) is typically 0.1-0.4 μ g/mL in the presence of 40 ng/mL Recombinant Human IL-18/IL-1F4.	

DATA	
<p>Immunohistochemistry</p>  <p>IL-18 Rα/IL-1 R5 in Human Skin. IL-18 Rα/IL-1 R5 was detected in immersion fixed frozen sections of human skin using Goat Anti-Human IL-18 Rα/IL-1 R5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF840) at 1.7 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS009) and counterstained with hematoxylin (blue). Specific labeling was localized to the plasma membrane of keratinocytes. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>	<p>Neutralization</p>  <p>IFN-γ Secretion Induced by IL-18/IL-1F4 and Neutralization by Human IL-18 Rα/IL-1 R5 Antibody. Recombinant Human IL-18/IL-1F4 stimulates IFN-γ secretion in the KG-1 human acute myelogenous leukemia cell line, in a dose-dependent manner (orange line), as measured by the Human IFN-γ Quantikine ELISA Kit (Catalog # DIF50). IFN-γ secretion elicited by IL-18/IL-1F4 (40 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-18 Rα/IL-1 R5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF840). The ND₅₀ is typically 0.1-0.4 μg/mL.</p>

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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. ● 6 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.