

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the pro region of human IL-18/IL-1F4 in direct ELISAs and Western blots. In these formats, approximately 5% cross-reactivity with mature recombinant human IL-18 is observed and less than 1% cross-reactivity with mature recombinant mouse IL-18 and recombinant rat IL-18 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human IL-18/IL-1F4
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm 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 µg/mL	Recombinant human IL-18/IL-1F4 Propeptide

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

Pro-IL-18 (pro-Interleukin 18; also pro-IGIF and pro-IL-1 γ) is a 24 kDa member of the IL-1 family of molecules. It is widely expressed, being produced by keratinocytes, intestinal epithelium, T cells, macrophages and osteoblasts. Human Pro-IL-18 is 193 amino acids (aa) in length. Although mature IL-18 induces IFN- γ secretion by NK and T cells, Pro-IL-18 appears to have little intrinsic activity. Generally, active IL-18 is considered to arise from caspase-1 cleavage of Pro-IL-18 between Asp36-Tyr37. This generates an 18 kDa mature C-terminal fragment, and a 4 kDa (predicted) N-terminal prosegment that runs at 6 kDa in SDS-PAGE. Other proteases are known to process Pro-IL-18. Caspase-3 cleavage after Asp68 generates an inactive 14 kDa mature segment, Merpin β -subunit cleavage after Asn52 generates a marginally active 17 kDa mature segment, while parasite Cys protease cleavage after Val47 generates an inactive 17 kDa mature molecule. One splice variant shows a deletion of aa 27-30. Over aa 2-36, human Pro-IL-18 shares 63% aa identity with mouse Pro-IL-18.