

## Product datasheet for TP728245

### Recombinant IL-18 (Interleukin-18), Human

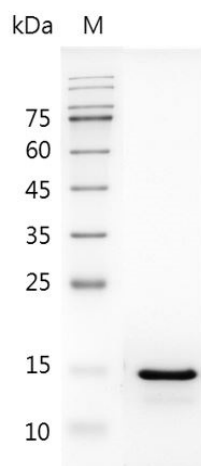
#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant IL-18 (Interleukin-18), Human
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	YFGKLESKLSVIRNLNDQVLFIDQGNRPLFEDMTDSDCRDNAPRTIFIISMYKDSQPRGMAVTISVKCEKIS TLSCENKIISFKEMNPPDNIKDTKSDIIFQRSVPGHDNKMQFESSYEGYFLACEKERDLFKLILKKEDELG DRSIMFTVQNED
Tag:	Tag Free
Predicted MW:	The protein has a calculated MW of 18.2 kDa. The protein migrates as 15 kDa under reducing condition (SDS-PAGE analysis).
Purity:	>95% as determined by SDS-PAGE.
Buffer:	The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 7.4.
Bioactivity:	Measure by its ability to induce IFN gamma secretion in KG-1 cells. The ED <sub>50</sub> for this effect is <6 ng/mL.
Endotoxin:	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution Method:	Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 100 µg/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.
Applications:	Cell culture
Storage:	Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.
UniProt ID:	<a href="#">Q14116</a>
Synonyms:	IGIF, IL-1g, IL1F4


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**Summary:**

Interleukin-18 (IL-18) belongs to the IL-1 superfamily and is constitutively produced by macrophages, dendritic cells (DCs) and other cells. IL-18 binds to the receptor of IL-18 (IL-18R) and initiate the recruitment and heterodimerization of the IL-18RACp, leading to downstream activation of NF- $\kappa$ B. After stimulation with IL-18, multiple cytokines including IFN- $\gamma$ , IL-13, IL-4, IL-8, and GM-CSF and both Th1 and Th2 lymphokines could be produced by different cells. As an immunoregulatory cytokine, IL-18 can promote development of T helper 1 (Th1) cells, which maximizes the production of IFN by synergistically stimulating to mature Th1 effectors in combination with IL-12. On the contrary, it inhibits the production of the anti-inflammatory cytokine IL-10. In addition, IL-18 exhibits multiple proinflammatory functions, such as increases in cell adhesion molecules, nitric oxide synthesis, and chemokine production.

**Product images:**


SDS- PAGE analysis of recombinant human IL-18