

Recombinant Human Interleukin-18 (IL-18)

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Rev. 1.00








Catalog Number:	PHC0186
Quantity:	25 µg
Lot Number:	See product label.
Molecular Weight:	18 kDa, 157 amino acid residues (corresponding to amino acid residues 37–193 of the mature sequence).
Purity:	>90% by SDS–PAGE analysis with Coomassie Brilliant Blue staining.
Description:	IL-18 is produced by macrophages and monocytes. IL-18 is a co-stimulator of Th1-like cells, inducing production of interferon-gamma, GM-CSF, and IL-2. IL-18 stimulates IL-2R alpha chain expression and Th1 cell proliferation. Human IL-18 is only minimally cross-reactive with mouse.
Biological Activity:	The biological activity was determined by measuring the dose-dependent production of interferon-γ by KG-1 cells (human myelomonocyte: ATCC CCL246). In this assay, KG-1 cells were cultured at a density of 3 × 10 ⁵ cells/mL for four days at 37°C in a 5% CO ₂ incubator with RPMI 1640 containing 10% fetal bovine serum. After four days, the cell density was adjusted to 3 × 10 ⁶ cells/mL and the cells were incubated for 24 hours at 37°C in a 5% CO ₂ incubator with RPMI + 10% fetal bovine serum in the presence of increasing concentrations of IL-18. Interferon-γ production was quantitated by ELISA. Under these conditions, supernatant from cultures supplemented with 40 ng/mL IL-18 contained 73.2 IU/mL interferon-γ, and supernatants from cultures supplemented with 80 ng/mL IL-18 contained 89.3 IU/mL interferon-γ.
Formulation:	Phosphate buffered saline, 0.1% BSA and 1% sucrose; lyophilized.
Endotoxin:	<0.1 ng/µg by the LAL method.
Production:	Produced in <i>E. coli</i> and purified by sequential chromatography.
Reconstitution Recommendation:	We recommend the vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute with 250 µL ice cold, sterile, distilled water on ice.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Store this lyophilized preparation at –20°C, preferably desiccated. Upon reconstitution, the protein may be stored at 2°C to 8°C for up to one week. For long term storage of the reconstituted protein, apportion into working aliquots and store at –80°C. Avoid repeated freeze/thaw cycles.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	Okamura, H., et al. (1995) Cloning of a new cytokine that induces IFN-gamma production by T cells. <i>Nature</i> 378(6552):88–91. Ushio, S., et al. (1996) Cloning of the cDNA for human IFN-gamma-inducing factor, expression in <i>Escherichia coli</i> , and studies on the biologic activities of the protein. <i>J. Immunol.</i> 156(11):4274–4279. Micallef, M.J., et al. (1996) Interferon-gamma-inducing factor enhances T helper 1 cytokine production by stimulated human T cells: synergism with interleukin-12 for interferon-gamma production. <i>Eur. J. Immunol.</i> 26(7): 1647–1651. Dao, T., et al. (1996) Interferon-gamma-inducing factor, a novel cytokine, enhances Fas ligand-mediated cytotoxicity of murine T helper 1 cells. <i>Cell. Immunol.</i> 173(2):230–235. Menon, R., et al. (2001) IL-18, a product of choriodecidual cells, increases during premature rupture of membranes but fails to turn on the Fas-FasL-mediated apoptosis pathway. <i>J. Assisted Rep. Gen.</i> 18 (5):276–284.







Related Products:

Product	Catalog no.
Human IL-18 ELISA Kit	KHC0181
Mouse IL-18 ELISA Kit	KMC0181
Recombinant Human IL-18	PHC0186
Recombinant Mouse IL-18	PMC0184
Mouse (monoclonal) Anti-Human IL-18, clone 25-2G	AHC9181
Mouse (monoclonal) Anti-Human IL-18, clone 125-2H	AHC8181
Rat (monoclonal) Anti-Human IL-18, clone 1599-2B	AHC7181
Rat (monoclonal) Anti-Mouse IL-18, clone 39-3F	AMC0181
Rat (monoclonal) Anti-Mouse IL-18, clone 74	AMC9181
Rat (monoclonal) Anti-Mouse IL-18, clone 93-10C	AMC8181

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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