

Recombinant Human Interleukin-6 (IL-6)

Catalog Number PHC0064 (5 µg), PHC0065 (10 µg), PHC0066 (25 µg), PHC0061 (100 µg), PHC0063 (1 mg)

Pub. No. MAN0003501 Rev. B.0

Product specifications








Lot number	See product label.
Molecular weight	21.3 kDa
Purity	>95% as determined by SDS PAGE analysis.
Amino acid sequence	PVPPGEDSKD VAAPHRQPLT SSERIDKQIR YILDGISALR KETCNKSNMC ESSKEALAEN NLNLPKMAEK DGCFSQGFNE ETCLVKIITG LLEFEVYLEY LQNRFSSEE QARAVQMSTK VLIQFLQKKA KNLDAITTPD PTTNASLLTK LQAQNQWLQD MTTHLILRSF KEFLQSSLRA LRQM
Biological activity	ED ₅₀ <20.0 pg/mL, determined by the dose dependent proliferation of mouse B9 cells. Determine the optimal concentration for each specific application using an initial dose response assay.
Formulation	Lyophilized, carrier free.
Sterility	The protein is eluted in acetonitrile and then lyophilized under aseptic conditions.
Endotoxin	<0.1 ng/µg
Production	Produced in <i>E. coli</i> and purified via sequential chromatography.
Reconstitution recommendation	Centrifuge the vial briefly, before opening to bring the contents to the bottom. Reconstitute the lyophilized protein in 100 mM acetic acid to a concentration of 0.1–1.0 mg/mL to regain full activity. Apportion the reconstituted protein into working aliquots and store at ≤ –20°C. Make any further dilutions of the reconstituted protein in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA.
Suggested working dilutions	The optimal concentration should be determined for each specific application.
Storage	Store the lyophilized protein at 2–8°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ –20°C (not in a frost-free freezer). Avoid repeated freeze-thaw cycles.
Expiration date	Expires one year from date of receipt when stored as instructed.
References	<p>Hirano, T. (1994) The Cytokine Handbook, 2nd Edition. (ed. A. Thomson) Academic Press Limited. San Diego, CA. pp 145-168.</p> <p>Agrawal, A, Cha-Molstad, H, Samols, D, and Kushner, I. (2001) Transactivation of c-reactive protein by IL-6 requires synergistic interaction of CCAAT/enhancer finding protein beta (C/EBP beta) and Rel p50. J. Immunol. 166(4):2378-2384.</p> <p>Craig, R, Larkin, AM, Mingo, AM, Thuerlauf, DJ, Andrews, C, McDonough, PM, and Glembotski, CC. (2000) p38 mitogen-activated protein kinase and nuclear factor-κ B collaborate to induce interleukin-6 gene expression and release: evidence for a cytoprotective autocrine signaling pathway in a cardiac myocyte model system. J.Biol. Chem. 275(31):23814-23824</p> <p>Cha-Molstad, H, Agrawal, A, Zhang, D, Samols, D, and Kushner, I. (2000) The rel family member p50 mediates cytokine-induced C-reactive protein expression by a novel mechanism. J. Immunol. 165:4592-4597.</p> <p>Dao, M, Taylor, N, and Nolte, J. (1998) Reduction in levels of the cyclin-dependent kinase inhibitor p27kip-1 coupled with transforming growth factor β neutralization induces cell-cycle entry and increases retroviral transduction of primitive human hematopoietic cells. Proc. Nat'l. Acad. Sci. 95(22):13006-13011.</p> <p>Dao, MA, Hwa, J, and Nolte, JA. (2002) Molecular mechanism of transforming growth factor beta-mediated cell-cycle modulation in primary human CD34(+) progenitors. Blood 99(2):499-506.</p> <p>Kahlert, H, Grage-Griebenow, E, Stuwe, HT, Cromwell, O, and Fiebig, H. (2000) T cell reactivity with allergoids: Influence of the type of APC. J. Immunol. 165(4):1807-1815.</p>


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