



Data Sheet: CellGro® / CellGenix™
Recombinant Human Interleukin 4 (IL-4), USP grade
ex vivo grade - Order No.: 1003

Source	A DNA sequence encoding the mature IL-4 protein (Yakota, T. et al., 1986, PNAS 83:5894) was expressed in <i>E. coli</i>
Raw Material Statement	Produced without the use of animal derived components (ADCF)
Production	Produced under GMP conditions
Molecular Mass	The methionyl form of the <i>E. coli</i> expressed mature human IL-4 contains 130 amino acid residues and has a molecular mass of approximately 14 kDa
Identity	Confirmed by DNA-sequencing of the expression plasmid in EOP-cells, Western Blot, and N-terminal sequencing of the final product
Purity	≥ 97%, as determined by SDS-PAGE (under reducing and non-reducing conditions) and visualized by Silver staining
Endotoxin Level	<50 EU/mg), as determined by LAL gel clot test according to Eur.Pharm.
Residual Host-Cell DNA	≤ 1 ng per 1 mg, as determined with the Threshold® system
Activity	Measured in a cell proliferation assay using a human factor-dependent cell line, TF-1 (Kitamura, T. et al., 1989, J. Cell Physiol. 140:323-334) ED50 is typically 0.05 – 0.2 ng/ml (2×10^7 – 5×10^6 USP units per mg ¹) ¹ USP units are equivalent to international units (IU)
Sterility	Sterility test according to Eur.Pharm. of the vialled product (direct inoculation)
Formulation	Lyophilized from a 250 µg/ml, 0.2µm-sterile-filtered solution in PBS without any carrier materials and preservatives
Amount per Vial	50 ± 7.5 µg, as determined by spectrophotometrical measurement at 280 nm using PBS as reference ($A_{280} = 0.63$ for a concentration of 1 mg/ml IL-4 in PBS)
Transport	Ambient temperature
Storage at	-20°C to -80°C. Avoid repeated freeze-thaw cycles
Shelf life	2 years from date of production Minimum 6 months from date of shipping
Intended Use	For research or clinical ex vivo cell culture use only. Not intended for human in vivo application.

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