

## Data Sheet

### CellGenix® Recombinant Human Tumor Necrosis Factor-alpha (rh TNF- $\alpha$ ) Preclinical Grade - Order No.: 1406-010 (10 $\mu$ g), 1406-050 (50 $\mu$ g)

#### Product Characteristics

Source	<i>E. coli</i>
Description	Human TNF- $\alpha$ accession # P01375, Val77-Leu233 N-terminal Met Molecular mass 17.5 kDa
Formulation	Lyophilized from a 0.2 $\mu$ m-filtered solution containing 1.5 mM potassium phosphate, 8.1 mM sodium phosphate, 2.7 mM potassium chloride, and 137 mM sodium chloride, pH 7.5.
Intended use	For preclinical <i>ex vivo</i> use. Not intended for therapeutic use.

#### Quality Parameters

Activity	$\geq 20 \times 10^6$ IU/mg calibrated against NIBSC #88/786 Measured in a cell cytotoxicity assay using a TNF $\alpha$ -sensitive cell line, L929
Purity	$\geq 95$ %, as determined by SDS-PAGE (under reducing and non-reducing conditions, visualized by Coomassie staining)
Endotoxin	$< 1000$ EU/mg, as determined by LAL gel clot test
Sterility	Sterility test of the vial product (direct inoculation)
Mass per vial	1406-010: 10 $\mu$ g, 1406-050: 50 $\mu$ g
Animal-derived component-free	<b>ADCF Level 2:</b> The final product contains neither animal- nor human-derived materials. ADCF Level 2 cytokines are produced in our dedicated animal-free facility. No animal-derived components are used throughout the complete production process. All ADCF Level 2 cytokines are produced in <i>E. coli</i> .

## Shipment & Storage

<b>Transport</b>	Ambient temperature. Please refer to Technote ( <a href="http://www.cellgenix.com">www.cellgenix.com</a> )
<b>Expiry</b>	3 years from date of shipment
<b>Storage &amp; Stability</b>	Store lyophilized cytokine at -20°C to -80 °C. Store a 100 µg/ml reconstituted cytokine solution: <ul style="list-style-type: none"><li>• 4 weeks at 2°C to 8°C under sterile conditions after reconstitution. Store in the original container.</li><li>• 4 months at -20°C to -80°C under sterile conditions after reconstitution. Store in 80 µl aliquots in polypropylene cryogenic vials.</li></ul> Avoid repeated freeze/thaw cycles.

## Handling Instructions

<b>Reconstitution</b>	Recommended in sterile water to a final concentration of 100 µg/ml (for 10 µg vials) or 250 µg/ml (for 50 µg vials).
<b>Dilution</b>	Recommended in CellGenix® serum-free media. For dilution with protein free medium, a carrier protein (0.1-1 % albumin or 1-10 % appropriate serum) has to be included. Failure to dilute product according to these instructions may result in loss of activity.

## Quality Statement

Final manufacturing steps and QC are performed in a GMP facility.