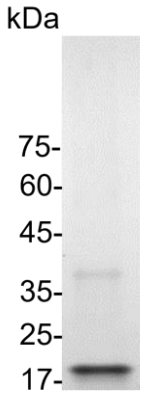
PRODUCT INFORMATION

GMP® TNF alpha (Tumor necrosis factor alpha), Human

v. 250301

Catalog number	C01047-GMP-100 / C01047-GMP-1000
Package	100 µg / 1 mg
Description	Tumor necrosis factor alpha (TNF alpha) is a kind of pleiotropic pro-inflammatory cytokine. It is secreted by various cells, such as adipocytes, activated monocytes, macrophages, B cells, T cells and fibroblasts. Proteolysis of the integral membrane precursor form of TNF alpha from cells soluble can release homotrimeric TNF alpha. TNF alpha can bind with some TNF alpha receptors induces apoptosis, besides, also trigger other responses depending on cell type, receptor expression, and signal transduction status. TNF alpha participate in the inflammatory response.
Expression System	*Escherichia coli*
Species of Origin	Human
Affinity Tag	His Tag (C-term)
Sequence	Val77-Leu233
Endotoxin level	<0.05 EU per 1 µg of the protein by the LAL method.
Activity	Measure by its ability to induce cytotoxicity in L929 cells in the presence of actinomycin D. The ED_{50} for this effect is < 0.1 ng/mL. The specific activity of recombinant human TNF alpha is approximately ≧ 1 x 10^7 IU/mg, which is calibrated against the human TNF Alpha WHO International Standard (NIBSC code: 12/154).
Purity	>97% as determined by SDS-PAGE.
Mycoplasma	Not detected
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 µm filtered solution of PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H_2O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
Stability & Storage	This product is stable after storage at: • -20°C for 12 months in lyophilized state from date of receipt.

	• -20°C or -80°C for 1 month under sterile conditions after reconstitution. Avoid repeated freeze/thaw cycles.
Specification	Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include: • Animal-free reagent and laboratory • Manufactured and tested under GMP guideline • Testing and traceability of raw material • Records of the maintenance and equipment calibration • Personnel training records • Batch-to-batch consistency • Documentation of QA control and process changes • Manufactured and tested under an ISO 13485:2016 certified quality management system • Stability monitor of product shelf-life
Reference	1. Idriss HT., Naismith JH. (2000) *Microsc Res Tech.* 50,3: 184-95. 2. Palladino MA. et al. (2003) *Nat Rev Drug Discov.* 2,9: 736-46. 3. Balkwill F. (2006) *Cancer Metastasis Rev.* 25,3: 409-16.. 4. van Horssen R. et al. (2006) *Oncologist.* 11,4: 397-408.



SDS-PAGE analysis of GMP® TNF alpha, Human

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