

Product datasheet for **TP728289M**

Recombinant TNF alpha (Tumor necrosis factor alpha), Human

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant TNF alpha (Tumor necrosis factor alpha), Human
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MVRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVWPSEGLYLIYSQVLFKGGQCPSTHVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYL DFAESGQVYFGIIAL with polyhistidine tag at the C-terminus.
Tag:	His Tag (C-term)
Predicted MW:	The protein has a calculated MW of 18.3 kDa. The protein migrates as 17 kDa under reducing condition (SDS-PAGE analysis).
Purity:	>97% as determined by SDS-PAGE.
Buffer:	The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 8.0.
Bioactivity:	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 $\geq 1 \times 10^7$ IU/mg.
Endotoxin:	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution Method:	Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 100 µg/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.
Applications:	Cell culture
Storage:	Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.
UniProt ID:	P01375
Synonyms:	TNFSF2, Cachectin, Differentiation-inducing factor (DIF), Necrosin, Cytotoxin, TNSF1A



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Summary:

Tumor necrosis factor alpha (TNF alpha) stimulates the acute phase of the immune response. In response to a pathogen, TNF alpha is one of the first to be released and can apply its effects in many organs. TNF alpha stimulates the release of corticotropin releasing hormone, suppresses appetite, and induces fever, in the hypothalamus. TNF increase vasodilation and loss of vascular permeability, it helps recruit lymphocyte, neutrophil, and monocyte to the inflammation site by regulating chemokine release.