

Datasheet: PHP051

BATCH NUMBER 172357

Description:	RECOMBINANT HUMAN TNF ALPHA
Name:	TNF ALPHA
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4ng/well
Western Blotting	▪			1.5 - 3.0ng/lane
Functional Assays	▪			0.05 - 20.0ng/ml

Where this protein has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the protein for use in their own system using appropriate positive/negative controls.

Target Species	Human
Product Form	Purified recombinant cytokine - lyophilized
Reconstitution	Reconstitute with 0.5 ml distilled water Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended. N.B. For functional studies do not add sodium azide
Source	E.coli
Buffer Solution	Sodium Phosphate
Preservative Stabilisers	None present
Carrier Free	Yes

Endotoxin Level	< 0.1 ng/ug
Approx. Protein Concentrations	Total protein concentration 0.1 mg/ml after reconstitution
External Database Links	<p>UniProt: P01375 Related reagents</p> <p>Entrez Gene: 7124 TNF Related reagents</p>
Synonyms	TNFA, TNFSF2
Product Information	Recombinant Human tumor necrosis factor alpha is an <i>E. coli</i> -derived recombinant protein corresponding to the C-terminal domain of human tumour necrosis factor alpha (TNFa), a pro-inflammatory cytokine with cytotoxic effects on various tumour cells.
Protein Molecular Weight	17.4kD (157 Amino acid sequence)
Activity	The activity of this protein has been tested on murine L929 cells.
Purity	>98% by SDS PAGE and HPLC analysis
ELISA	PHP051 may be used as a standard in a sandwich ELISA with AHP1212 as the capture reagent and AHP1212B as the detection reagent.
Western Blotting	PHP051 may be used as a positive control in western blotting for either AHP1212 or AHP1212B .
References	<ol style="list-style-type: none"> 1. Cernuda-morollón, E. <i>et al.</i> (2001) 15-Deoxy-Delta 12,14-prostaglandin J2 inhibition of NF-kappaB-DNA binding through covalent modification of the p50 subunit. J Biol Chem. 276 (38): 35530-6. 2. Dernfalk, J. <i>et al.</i> (2004) Commercially available antibodies to human tumour necrosis factor-alpha tested for cross-reactivity with ovine and bovine tumour necrosis factor-alpha using flow cytometric assays. Acta Vet Scand. 45: 99-107. 3. Taubert, A. <i>et al.</i> (2007) Eimeria bovis infection enhances adhesion of peripheral blood mononuclear cells to and their transmigration through an infected bovine endothelial cell monolayer in vitro. Parasitol Res. 101: 591-8. 4. Taubert, A. & Hermosilla, C. (2008) Bovine recombinant IFNgamma induces endothelial cell gene transcription of immunoregulatory molecules and upregulates PMN and PBMC adhesion on bovine endothelial cells. Vet Res Commun. 32: 35-47. 5. Gerber, P.A. <i>et al.</i> (2016) Mechanisms of skin aging induced by EGFR inhibitors. Support Care Cancer. 24 (10): 4241-8. 6. Hara, H. <i>et al.</i> (2021) Stable expression of the human thrombomodulin transgene in pig endothelial cells is associated with a reduction in the inflammatory response. Cytokine. 148: 155580. 7. Yamazaki, N. <i>et al.</i> (2022) VE-cadherin-dependent vasculogenic mimicry-like tube

formation in rheumatoid arthritic synovium, [Res Sq. 10 Oct \[Epub ahead of print\]](#).
8. Kislak, A. *et al.* (2023) The Endogenous Dual Retinoid Receptor Agonist Alitretinoin Exhibits Immunoregulatory Functions on Antigen-Presenting Cells. [Int J Mol Sci. 24 \(11\):9654.](#)

Storage	Prior to reconstitution store at -20°C. Following reconstitution store at -20°C. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
Health And Safety Information	Material Safety Datasheet documentation #10527 available at: https://www.bio-rad-antibodies.com/SDS/PHP051
Regulatory	For research purposes only

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M433617:241118'

Printed on 29 Jan 2026