

Datasheet: PHP051A

BATCH NUMBER 172257

Description:	RECOMBINANT HUMAN TNF ALPHA
Name:	TNF ALPHA
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	10 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	▪			0.05ng/ml - 20ng/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 0.1 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	Phosphate buffered saline
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	17.4 kDa based on 157 amino acid sequence
Activity	PHP051A has a specific activity of >2 x 10 ⁷ units/mg as determined by cytolysis of L929 cells in the presence of Actinomycin D.
Purity	>98% by SDS PAGE and HPLC analysis
ELISA	This product may be used as a standard in ELISA with either AHP1212 or AHP1212B .
Western Blotting	This product may be used as the positive control in Western Blotting applications with 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/PHP051A>

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
'M433618:241118'

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