

Datasheet: PHP051

BATCH NUMBER 166163

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| 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.

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| 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 |

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| 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. 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. 3. 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. 4. 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. 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 \[Epub ahead of print\]](#).

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/PHP05110527>

Regulatory For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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