

Tumor Necrosis Factor- α

✓ 100 μ l
(10 μ g)

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com
Support ■ 877-678-TECH (8324)
info@cellsignaling.com
Web ■ www.cellsignaling.com

rev. 07/24/06

This product is for *in vitro* research use only and is not intended for use in humans or animals.

| Molecular Wt. | Source | Purity |
|---------------|---------------------------|--------|
| 17.3 kDa | Human Recombinant Protein | >95% |

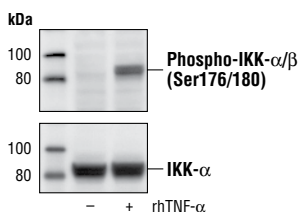
Background: TNF- α is an important cytokine produced by numerous cell types including neutrophils, activated lymphocytes, macrophages and NK cells. It plays a critical role in inflammatory responses and in apoptosis (1). TNF- α exists as a membrane-anchored and soluble form, both of which show biological activity. Response to TNF- α is mediated through two receptors, TNFR1, which is widely expressed, and TNFR2, which is expressed mainly in immune and endothelial cells (2). Antagonists to TNF- α have been validated as therapeutic targets for rheumatoid arthritis and other immune disorders (3).

Description: The human TNF- α cDNA was subcloned into an expression vector and expressed in *E. coli*. The recombinant human TNF- α (rhTNF- α) protein was purified and stored in PBS buffer containing 0.1%BSA.

Concentration and Specific Activity: 100 μ g/ml, 3 x 10⁷ IU/mg.

Background References:

- (1) Aggarwal, B.B. (2003) *Nat. Rev. Immunol.* 3, 745–756.
- (2) Locksley, R. M. et al. (2001) *Cell* 104, 487–501.
- (3) Taylor, P. C. et al. (2004) *Curr. Opin. Biotech.* 15, 557–563.



Western blot analysis of HeLa cells stimulated with rhTNF- α (10 ng/ml for 5 minutes), using Phospho-IKK- α/β (Ser176/180) (16A6) Rabbit mAb #2697 (upper) and IKK- α Antibody #2682 (lower).

Storage: rhTNF- α is supplied as a solution. It should be stored at - 80°C. Aliquot the reagent upon receipt and avoid repeated freeze-thaw cycles. CST recommends using 10-50 ng/ml of rhTNF- α for stimulation of TNF- α signaling.

Companion Products:

- TNF- α Antibody #3707
- TRAF2 Antibody #4712
- RIP Antibody #4926
- IKK α Antibody #2682
- IKK β (2C8) Rabbit mAb #2370
- Phospho-IKK α/β (Ser176/180) (16A6) Rabbit mAb #2697
- NF- κ B p65 Antibody #3034
- Phospho-NF- κ B p65 (Ser536) (93H1) Rabbit mAb #3033
- I κ B α (L35A5) Mouse mAb (Amino-terminal Antigen) #4814
- Phospho-I κ B- α (Ser32) (14D4) Rabbit mAb #2859
- NF- κ B Control Cell Extracts #9243