

Product datasheet for **AM26330SU-N**

Tumor necrosis factor (TNF-alpha) Rat Monoclonal Antibody [Clone ID: V1q]

Product data:

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|------------------------------|---|
| Product Type: | Primary Antibodies |
| Clone Name: | V1q |
| Applications: | FN |
| Recommended Dilution: | Flow cytometry (2,4): Antibody V1q stains the extracellular domain of mouse TNF- α . The CHO cells were fixed in PBA containing 0.2 % formaldehyde before staining. As positive control mTNF- α transfected cells were used (Ref.2). Functional assays (1,3,5): Antibody V1q functions as a neutralizing antibody. The antibody was functionally tested by neutralization of the cytopathic effect of cytotoxin in the L929 TNF bioassay. The biological activity of the antibody can be defined as the concentration of V1q required to neutralize 100 U/ml of TNF/cytotoxin (Ref.1). Positive control: Monocytes/macrophages. |
| Reactivity: | Hamster, Mouse |
| Host: | Rat |
| Isotype: | IgD |
| Clonality: | Monoclonal |
| Immunogen: | Cytotoxin purified from conA induced T cell clone 29 |
| Specificity: | The monoclonal antibody V1q recognizes mouse tumor necrosis factor alpha (TNF- α). It recognizes both natural and recombinant TNF- α and shows neutralizing activity. Does react with Receptor-bound mouse TNF- α . |
| Formulation: | PBS State: Liquid 0.2 μ m filtered antibody solution Stabilizer: 0.1% bovine serum albumin |
| Concentration: | lot specific |
| Conjugation: | Unconjugated |
| Storage: | Store at 2 - 8 $^{\circ}$ C. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | tumor necrosis factor |



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Background: TNF- α is the prototype cytokine of the family of TNF-related ligands, which are based on structural and functional homologies. TNF- α is synthesized as type II transmembrane protein. TNF- α can be recognized by two different membrane receptors, namely TNF-R1 and TNF-R2. TNF- α is present in a membrane-bound (tmTNF) as well as soluble form (sTNF). The membrane-bound form of TNF- α is recognized by both TNF receptors with high affinity, whereas the soluble form is recognized more superiorly by TNF-R1. TNF- α is produced by many different cell types including macrophages, T lymphocytes, NK cells, neutrophils and endothelial cells. Cells differ in the expression of the two TNF-receptors and sTNF versus tmTNF, respectively.

TNF- α , a homotrimeric 17 kDa protein, is a potent mediator of inflammatory and metabolic functions. TNF- α was originally detected as a highly cytotoxic cytokine for tumor cells, it causes tumor necrosis in vivo and shows cytolytic activity against tumor cells in vitro. Furthermore, TNF- α has been implied as central mediator in shock induced by gram negative micro-organisms. TNF- α induces on its turn the production of many other cytokines. Furthermore, TNF- α has been found in inflammatory foci such as synovial effusions in rheumatoid arthritis, systemic circulation in septic shock, parasitemia and rejection of renal transplants.

Synonyms: TNF, TNF-a, TNFA, TNFSF2, Cachectin