MONOCLONAL ANTIBODY TO HUMAN TUMOR NECROSIS FACTOR ALPHA (TNF-alpha) clone 5N

Catalog nr: HM2218 (lot number and expiry date are indicated on the label)

Description: The monoclonal antibody 5N reacts with Tumor Necrosis Factor alpha (TNF-alpha). Tumor necrosis factor-alpha (TNF-alpha), a homotrimeric 17 KD protein, is a potent mediator of inflammatory and metabolic functions. TNF-alpha 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. Further TNF-alpha has been implied as central mediator in shock induced by gram negative micro-organisms. The cytokine TNF-alpha is found to be a central mediator in many inflammatory and immunological processes; it can be induced by various micro-organisms and by various cytokines but it also induces on its turn the production of many cytokines. Signal transduction occurs via two types of TNF-receptors, the TNF-receptors I and II. The receptors differ strongly in their intra-cellular signaling pathways. The TNF-alpha trimer interacts with either of the two types of TNF-R leading to receptor cross-linking. The monoclonal antibody 5N cross-reacts and cross-neutralizes all monkey species TNF-alpha, except pig-tail macaque. With affinity about two orders lower it recognizes bovine and canine TNF-alpha.

Aliases: TNF, TNF-SF2, DIF, Cachectin

Species: Mouse IgG2a

Formulation: 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin.

Application: The monoclonal antibody 5N can be used for immuno assays. Furthermore the monoclonal antibody 5N is useful for the inhibition of biological activity of TNF-alpha.

Use: For neutralization of biological activity in vitro dilutions have to be made according to the amounts of TNF-alpha to be inactivated. The affinity of the monoclonal antibody 5N is 5.7 x 10^{-10} M. The homologous ELISA is useful for the detection of oligomeric human TNF-alpha. It does not recognize monomeric TNF-alpha.

Storage and stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

Precautions: For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

References:

Also available:
- HC2040: Recombinant Human TNF-alpha (E.coli derived): 5x10^5 units
- HM2010: Monoclonal antibody against Human TNF-alpha, clone 52B83; membrane TNF
- HM2026: Monoclonal antibody against Human TNF-alpha, clone T3; membrane TNF and receptor bound TNF
- HM2005: Monoclonal antibody against Human TNF-RI, clone MR1-2, agonistic
- HM2007: Monoclonal antibody against Human TNF-RII, clone MR2-1, agonistic and receptor-modulating
- HM2218-05: Monoclonal antibody against Human TNF-alpha, clone 5N; 500 µg

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