**SPECIFICITY**

Tumor necrosis factor (TNFα) or cachectin is a cytokine that was first identified based on its cytotoxic activity against various cell lines. Human TNFα is synthesized as a pro-protein with a molecular weight of 26 kDa (membrane-bound form). The pro-protein is cleaved by a specific metalloprotease (TACE) yielding a monomeric, soluble form of 17 kDa (1). Under physiological conditions, TNFα forms a homotrimeric protein (1, 2).

This cytokine is primarily produced by mononuclear phagocytes, and by activated lymphocytes. Immunostaining allows intracellular detection of TNFα before it can be detected by a bioassay (3). TNFα acts on target cells by binding to two types of receptors, the TNFα receptor I (TNF-RI or CD120a) and the TNFα receptor II (TNF-RII or CD120b) (4). TNFα elicits a wide spectrum of immune and inflammatory responses, including the induction of other cytokines and immunoregulatory molecules, cell growth and differentiation and apoptosis (5, 6). This molecule is also involved in Th1 – Th2 (T helper 1 – T helper 2) cytokine pathways (or Type 1 – Type 2 responses), as a Th1-effector cytokine (3, 7, 8).

The monoclonal antibody 188 specifically reacts with TNFα (9, 10).

**REAGENT**

<table>
<thead>
<tr>
<th>IOTest TNFα-PE</th>
<th>Conjugated antibody</th>
<th>PN IM3279U – 2 mL – Liquid – 20 µL/test</th>
</tr>
</thead>
</table>

**Clone**

IMP2(188)

**Isotype**

IgG1, Mouse

**Immunogen**

U266 cell line

**Hybridoma**

X63 x balb/c

**Source**

Ascites fluid or supernatant of in vitro cultured hybridoma cells.

**Purification**

Affinity chromatography

**Conjugation**

R Phycocerythrin (PE)

**Molar Ratio**

PE / Ig: 0.5 - 1.5

**Fluorescence**

Excites at 488 nm

Emits at 575 nm

**REAGENT CONTENTS**

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

**STATEMENTS OF WARNING**

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.

2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.

3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes. Do not use antibody beyond the expiration date on the label.


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