P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

TNF-alpha (Tumor Necrosis Factor alpha); Clone TNF706 & P/T2

(Concentrate)

Availability/Contents:

Item #	Volume
RA0317-C.5	0.5 ml

Description:

Species:	Mouse
Immunogen:	Recombinant human TNF-alpha
Clone:	TNF706 & P/T2
Isotype:	IgM, kappa (TNF706 & P/T2)
Entrez Gene ID:	7124 (Human)
Hu Chromosome Loc.:	6p21.33
Synonyms:	APC1, Cachectin, Differentiation inducing factor (DIF), Macrophage cytotoxic factor (MCF), Necrosin, TNF alpha, TNF Macrophage Derived, TNF Monocyte Derived, TNF Superfamily Member 2, TNFA, TNFSF2, Tumor necrosis factor ligand superfamily member 2, Tumor Necrosis Factor Precursor
Mol. Weight of Antigen:	17kDa
Format:	200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Specificity:	This antibody reacts with Tumor necrosis factor-alpha. It reacts on paraffin sections with macrophages in which the cytoplasm is stained. Some keratinocytes are also positive (tonsils).
Background:	Tumor necrosis factor alpha (TNF-alpha) is a protein secreted by lipopolysaccharide-stimulated macrophages, and causes tumor necrosis when injected into tumor bearing mice. TNF-alpha is believed to mediate pathogenic shock and tissue injury associated with endotoxemia. TNF-alpha exists as a multimer of two, three, or five non-covalently linked units, but shows a single 17kDa band following SDS-PAGE under non-reducing conditions. TNF-alpha is closely related to the 25kDa protein tumor necrosis factor beta (lymphotoxin), sharing the same receptors and cellular actions. TNF-alpha causes cytolysis of certain transformed cells, being synergistic with interferon gamma in its cytotoxicity. Although it has little effect on many cultured normal human cells, TNF-alpha appears to be directly toxic to vascular endothelial cells. Other actions of TNF alpha include stimulating growth of human fibroblasts and other cell lines, activating polymorphonuclear neutrophils and osteoclasts, and induction of interleukin 1, prostaglandin E2, and collagenase production. TNF-alpha is currently being evaluated in the treatment of certain cancers and AIDS related complex.
Species Reactivity:	Human, Mouse, Rat, Rabbit, Cat, Dog, and Zebrafish. Others not known.
Positive Control:	HeLa, HL-60, or A431 cells. Macrophages in lymph node or tonsil.
Cellular Localization:	Cytoplasmic and extracellular (secreted)
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 1-2 µg/ml Flow Cytometry: 0.5-1 µg/million cells Immunofluorescence: 1-2 µg/ml Immunoprecipitation: 1-2 µg/500µg protein lysate
Microbiological State:	This product is not sterile.

Storage: 2° C – 8° C

ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
U.S.A.

EC REP EmergoEurope (31)(0) 70 345-8570
Molsnstraat 15
2513 BH Hague, The Netherlands

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Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Non-Sterile.

Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

1. Bebok Z; Markus B; Nemeth P. Prognostic relevance of transforming growth factor alpha (TGF-alpha) and tumor necrosis factor alpha (TNF-alpha) detected in breast cancer tissues by immunohistochemistry. Breast Cancer Research and Treatment, 1994, 29(3):229-35.
2. Bebok Z; Szekeres G; Horvath G; Duda E; Nemeth P. [Creation of monoclonal antibodies against tumor necrosis factor-alpha (TNF-alpha) and transforming growth factor alpha (TFG-alpha), their definition and possible use]. Orvosi Hetilap, 1993 Jun 13, 134(24):1303-7. Language: Hungarian.
3. McLaughlin PJ; Elwood NJ; Russell SM; Andrew SM; McKenzie IF. Properties of monoclonal antibodies to human tumor necrosis factor alpha (TNF alpha). Anticancer Research, 1992, 12(4):1243-6.

Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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