

Instructions For Use

RA0314-C.5-IFU-RUO

Rev. Date: Dec. 12, 2014

Revision: 1

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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 4C6-H8

(Concentrate)

Availability/Contents:

Item # RA0314-C.5 Volume 0.5 ml

Description:

Species: Mouse

Immunogen: A hexadecapeptide corresponding to amino acids 115-130 of human TNF-alpha, conjugated to

thyroglobulin.

Clone: 4C6-H8
Isotype: IgM, kappa
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: Bioreactor Concentrate with 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)

U.S.A.

Titer/ Working Dilution: Immunohistochemistry (Frozen and Formalin-fixed): 1:100-1:200

Flow Cytometry: 5-10 µl/million cells

Immunofluorescence: 1:50-1:100

Microbiological State: This product is not sterile.

Storage: 2° C 8° C

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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:

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

Warranty:

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