

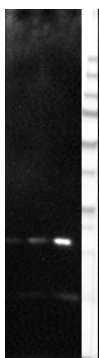
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	TNF-Alpha, Human, clone 52B83		
Catalog number	HM2010-100UG		
Lot number	-	Expiry date	-
Volume	1 ml	Amount	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Concentration	100 µg/ml
Host Species	Mouse IgG1	Conjugate	None
Endotoxin	N.A.	Purification	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	4,6			3				4
Yes	•			•		•		•
No		•						
N.D.			•		•		•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



W: 10, 25 and 50 ng recombinant TNF-alpha was used as sample with antibody HM2010 as primary antibody. A reduced sample treatment was used and a band of 17 kDa is shown.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody 52B83 was used to stain soluble TNF bound to TNF receptors. Cells were fixed in PBA containing 0.2% formaldehyde (Ref. 3)
- W: A reduced sample treatment and 15% SDS-Page was used. The band size observed is 17 kDa (Ref. 4).
- IHC-F: 6-µm tissue sections were fixed in acetone for 10 minutes (Ref. 4).

General Information

Description The monoclonal antibody 52B83 reacts with tumor necrosis factor alpha (TNF-alpha). TNF-alpha is a homotrimeric 17 kDa protein, that interacts with either one of the two types of TNF-receptors, termed I and II, leading to receptor cross-linking and signal transduction. The receptors differ strongly in their intra-cellular signaling pathways. TNF-alpha was originally described 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-alpha is found to be a central mediator in many inflammatory and immunological processes. It can be induced by various products of micro-organisms and by various cytokines leading to expression of a wide variety of cytokines. The pro-inflammatory properties of TNF-alpha play a central role in several auto-immune diseases such as rheumatoid arthritis and inhibition by neutralizing molecules have been shown to be beneficial in patients.

Aliases Tumor Necrosis Factor-alpha, TNF, TNF-SF2, cachectin

Cross reactivity Rhesus monkey: Yes; Mouse: Yes; Guinea pig: Yes.

- References**
1. Bradding, P et al; Interleukin-4, -5, and -6 and Tumor Necrosis Factor-alpha in normal and asthmatic airways: Evidence for the human mast cell as a source of these cytokines. *Am J Respir Cell Mol Biol* 1994, *10*: 471
 2. Bradding, P et al: TNFalpha is localized to nasal mucosal mast cells and is released in acute allergic rhinitis. *Clin Exp Allergy* 1995, *25*: 406
 3. Gerspach, J et al; Detection of membrane-bound Tumor Necrosis Factor (TNF): an analysis of TNF-specific reagents. *Microsc Res Tech* 2000, *50*: 243
 4. Laan van der, N et al; Tumor necrosis factor alpha (TNFalpha) in human skin: a comparison of different antibodies for immunohistochemistry. *Arch Dermatol Res* 2001, *293*: 226
 5. Lee, E et al; Clinical and immunohistochemical characteristics of mucocoeles. *Ann Dermatol* 2009, *21*:345
 6. Brunner, P et al; Infliximab induces downregulation of the IL-12/IL-23 axis in 6-sulfo-LacNac (sIa_N)¹ dendritic cells and macrophages. *J Allergy Clin Immunol* 2013, *132*:1184

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least 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.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
29/11/2019

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.