

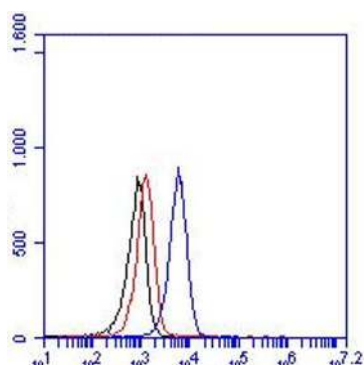
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	TNF-RI, Human, clone H398		
Catalog number	HM2020-500UG		
Lot number	-	Expiry date	-
Volume	-	Amount	500 µg
Formulation	0.2 µm filtered in PBS	Concentration	>0.5 mg/ml
Host Species	Mouse IgG2a	Conjugate	None
Endotoxin	<24 EU/mg	Purification	Protein G
Storage	4°C		

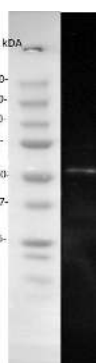
Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #					1,4,5,7		1	1
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



FC: Flow cytometry with THP-1 cells. The black line represents cells only, the red line the isotype control and the blue line H398 in a concentration of 2 µg/250000 cells.



W: Western blot with antibody H398 on HELA cells (10 µg/ml loaded). Concentration of H398 used is 2 µg/ml.

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.

- W: Reduced sample conditions were used. A band size of ~55-60 kDa is expected.
- FC: Antibody H398 can be used for extracellular staining.
- FS: The monoclonal antibody H398 is useful as antagonistic antibody in functional studies. Be aware that the antibody competes with TNF-alpha.

General Information
Description

The monoclonal antibody H398 recognizes the extracellular part of the Tumor Necrosis Factor Receptor type I (TNF-RI) of the membrane-bound as well as the soluble receptor. TNF-RI (~55-60 kDa) is present on most cell types and is considered to play a prominent role in cell stimulation by TNF-alpha. TNF-alpha activates inflammatory responses, induces apoptosis, regulates cellular proliferation, and may even promote cancer progression. The effects of TNF-alpha are mediated by TNF-RI and TNF-RII, which have both distinct and overlapping downstream signaling cascades. Induction of cytotoxicity and other functions are mediated largely via TNF-RI. TNF-RI is equally well activated by both the 17 kDa soluble and 26 kDa membrane-bound form, whereas TNF-RII is efficiently activated only by the membrane bound form of TNF-alpha. TNF-RI signaling is initiated when trimeric TNF-alpha binds TNF-RI receptors. Subsequent TNF-RI trimerization promotes the recruitment of a proximal signaling complex composed of TNF Receptor Associated protein with a Death Domain (TRADD), Receptor Interacting Protein (RIP), cellular Inhibitor of Apoptosis Protein 1 (cIAP1), TNF Receptor Associated Factor 2 (TRAF2), and likely TRAF5. Studies with TNF-RI-deficient mice indicate that TNF-RI mediates most of the proliferation, pro-inflammatory, and apoptosis-activating pathways.

Immunogen	Affinity-purified receptor material from HL60 cells containing ~9 µg actively binding receptor (Ref.1).
Aliases	CD120a, Tumor necrosis factor receptor superfamily member 1A, Tumor necrosis factor receptor 1, p55, p60, TNFR-1
Gene	Gene name: TNFRSF1A, TNFAR, TNFR1
Cross reactivity	Rat TNF-RI: Yes; TNF-RII: No
References	<ol style="list-style-type: none"> 1. Thoma, B et al; Identification of a 60 kD tumor necrosis factor (TNF) receptor as the major signal transducing component in TNF responses. <i>J Exp Med</i> 1990, <i>172</i>: 1019 2. Grell, M et al; TR60 and TR80 tumor necrosis factor (TNF)-receptors can independently mediate cytotoxicity. <i>Lymphokine Cytokine Res</i> 1993, <i>12</i>: 143 3. Scheurich, P et al; Agonistic and antagonistic antibodies as a tool to study the functional role of human tumor necrosis factor receptors. <i>Tumor Necrosis factor</i> 1993, <i>4</i>: 52 4. Grell, M et al; The type 1 receptor (CD120a) is the high-affinity receptor for soluble tumor necrosis factor. <i>Proc Natl Acad Sci USA</i> 1998, <i>95</i>: 570 5. Krippner-Heidenreich, A et al; Single-chain TNF, a TNF derivative with enhanced stability and antitumoral activity. <i>J Immunol</i> 2008, <i>180</i>: 8176 6. Kontermann, R et al; A humanized tumor necrosis factor receptor 1 (TNFR1)-specific antagonistic Antibody for selective inhibition of tumor necrosis factor (TNF) action. <i>J Immunother</i> 2008, <i>31</i>: 225 7. Kälble, F et al; Selective Blocking of TNF Receptor 1 Attenuates Peritoneal Dialysis Fluid Induced inflammation of the Peritoneum in Mice. <i>PLoS ONE</i> 2016, <i>11</i>: e0163314
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.

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Approved by Manager of QC
Brenda Teunissen

Date
05/11/2019

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