

## CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

<b>Product name</b>	TIM-4, Mouse, clone Kat5-18, FITC conjugated		
<b>Catalog number</b>	HM1111F-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+1%BSA+0.02%NaN <sub>3</sub>	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Armenian Hamster IgG1, kappa	<b>Conjugate</b>	FITC
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein A
<b>Storage</b>	4°C		

### Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #			1	2	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

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: Cells were incubated on ice for 30 min with 1 µg/ml biotinylated Kat5-18 in 100 µl staining solution (PBS containing 2% FCS), followed by incubation with 2 µg/ml Allophycocyanin (APC)-Cyanine 7 (Cy7)-conjugated streptavidin and 2 µg/ml APCconjugated anti-CD11b. The cells were then stained with 0.5 µM SYTOX Blue (Ref.2).
- FS: Antibody Kat5-18 blocks the engulfment of apoptotic cells by thymic macrophages (Ref.1).

### General Information

<b>Description</b>	The monoclonal antibody Kat5-18 recognizes T-cell immunoglobulin and mucin domain containing molecule (TIMD-4, also called TIM-4). TIMD-4 is a type I transmembrane protein belonging to the immunoglobulin superfamily, containing one Ig-like V-type (immunoglobulin-like) domain. TIMD-4 is expressed in Mac1+ cells in spleen, lymph nodes and fetal liver. TIMD-4 binds apoptotic cells by recognizing phosphatidylserine via its immunoglobulin domain. TIMD-4 in fibroblasts enhanced their ability to engulf apoptotic cells. TIMD-4 is involved in regulating T-cell proliferation and lymphotoxin signaling. TIMD-4 and TIMD-1 are phosphatidylserine receptors for the engulfment of apoptotic cells, and are also involved in intracellular signaling in which exosomes are involved. The monoclonal antibody Kat5-18 blocks the engulfment of apoptotic cells by thymic macrophages.
<b>Immunogen</b>	Mouse peritoneal cells (Ref.1)
<b>Aliases</b>	T-cell immunoglobulin and mucin domain-containing protein 4, TIMD-4, Spleen, mucin-containing, knockout of lymphotoxin protein, SMUCKLER, T-cell immunoglobulin mucin receptor 4, TIM-4, T-cell membrane protein 4
<b>Gene</b>	Gene name: Timd4, Tim4
<b>References</b>	<ol style="list-style-type: none"> <li>1. Miyanishi, M et al; Identification of Tim4 as a phosphatidylserine receptor. Nature 2007, 450: 435</li> <li>2. Miyanishi, M et al; Synergistic effect of Tim4 and MFG-E8 null mutations on the development of autoimmunity. Int Immunol 2012, 24:551</li> </ol>

**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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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  
11/11/2020

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).