

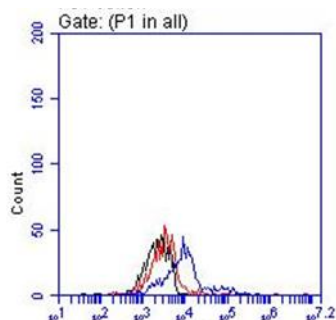
## CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

<b>Product name</b>	TIGIT, Mouse, clone TX99		
<b>Catalog number</b>	HM1149-20UG		
<b>Lot number</b>	xxxxxXxxxx-X	<b>Expiry date</b>	MMM YYYY
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Rat IgG1	<b>Conjugate</b>	None
<b>Endotoxin</b>	<24 EU/mg	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

### Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #				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 Ba/F3 cells. A small shift is seen with these cells. HM1149 was used in a concentration of 4µg/250000 cells.

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: An extracellular protocol was used. With Ba/F3 cells the shift is ~10-12%
- FS: TX99 is a neutralizing mAb that can be used for studies of mTIGIT functions: TX99 interfered with the interaction between TIGIT and CD155 and increased NK cell-mediated cytotoxicity against CD155-expressing RMA-S cells. (Ref. 1).

### General Information

#### Description

Rat monoclonal antibody clone TX99 recognizes murine T cell immunoglobulin and ITIM domain (TIGIT). It is a inhibitory immune-checkpoint implicated in tumor immunosurveillance. The receptor is predominantly expressed on NK cells and several T-cells (effector, memory and regulatory). TIGIT consists of a extracellular immunoglobulin variable domain, a type I inhibitory motif (ITIM) and a immunoglobulin tyrosine tail (ITT)-like motif. The homology between mouse and human is 58%, however the cytoplasmic tail between human and mice is identical. The main ligand of TIGIT is CD155 (PVR), which is highly expressed on APC's, activated T-cells and some tumor cells. Another ligand is CD112 (nectin-2). TIGIT negatively regulates antitumor responses, but promotes autoimmune reaction. When binding to CD155 it enhances the inhibitory function of Tregs by inducing IL-10. Binding to NK cells suppresses cytotoxicity and IFN-gamma expression. TIGIT is upregulated in a variety of different cancers. TIGIT has emerged as an attractive target for cancer therapy. Upregulation has also been found in SLE and rheumatoid arthritis. TIGIT has also been found to regulate antiviral responses like HIV infection. Antibody TX99 interferes with the interaction with CD155 and enhances NK-cell mediated cytotoxicity against CD155-expressing RMA-S-cells. The antibody has neutralizing capacity.

#### Immunogen

Recombinant protein

<b>References</b>	1. Nakamura, Y et al; TX99 Is a Neutralizing Monoclonal Antibody Against Mouse TIGIT. Mon ab in Immunodiagnosis and immunotherapy, 2018, 37:105
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
<b>Precautions</b>	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

Date

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