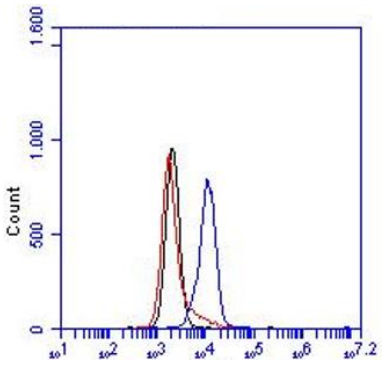
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	LT beta receptor, Mouse, clone 5G11		
Catalog number	HM1079-10MG		
Lot number	-	**Expiry date**	-
Volume	-	**Amount**	10 mg
Formulation	0.2 µm filtered in PBS	**Concentration**	>0.5 mg/ml
Host Species	Rat 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 #				2	2			
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: detection of LT beta receptor in Wehi-164 cells. Red, black and blue line represent the isotype control, cells only and HM1079 with a concentration of 1 µg/250000 cells, respectively.

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.

- FS: HM1079 induces significant NFkB activation and the release of MIP-2 (ref.2).

General Information

Description

The monoclonal antibody 5G11 reacts with the mouse lymphotoxin beta-receptor (LTbetaR), a member of the tumor necrosis factor (TNF) family. This receptor can be activated by its functional ligands lymphotoxin-alpha1-beta2 (LT-alpha1beta2) and LIGHT and is critically involved in controlling bacterial infections. In Mycobacterium infection, its role is related to bactericidal granuloma formation in the spleen, macrophage differentiation and the maintenance of the appropriate Th1/Th2 cytokine balance. In CMV infection, LTbetaR signaling induces the expression of IFN-beta in infected fibroblasts, resulting in viral stasis. LTbetaR plays an important role in lymphoid organogenesis and tumor development. The receptor is expressed on fibroblasts and stromal cells and at low levels in some myeloid cell lines. In the adult animal, the LTbetaR seems to be necessary for maintaining the splenic architecture and aspects of Ig formation and B cell follicular structure. When the LT-alpha1beta2/LTbetaR pathway is disrupted by genetic deletion, mice completely lack Peyer's patches. Also, LTbetaR induces cell death in some adenocarcinoma tumor lines in the presence of IFNgamma. The monoclonal antibody 5G11 directed against the mouse LTbetaR is able to activate the LTbetaR in an agonistic way and induces NFkappaB activation and secretion of MIP-2 and IL-6 in mouse fibroblast cells. Therefore, the monoclonal antibody 5G11 can be used to gain more insight into the expression pattern of the LTbetaR and also to investigate molecular mechanisms induced by LTbetaR activation.

Immunogen	Drosophila S2 expressed mouse LTbR Ig fusion protein
References	1. Lucas, R et al ; A role for lymphotoxin beta receptor in host defense against Mycobacterium bovis BCG infection. Eur J Immunol 1999, 29 : 4002 2. Hehlgans, T et al; Activation of the lymphotoxin-beta receptor induces NFkB-dependent interleukin-6 and MIP-2 secretion in mouse fibrosarcoma cells. Eur Cytokine Netw 2003, 14: 103 3. Banks, T et al : A lymphotoxin-IFN-beta axis essential for lymphocyte survival revealed during Cytomegalovirus infection. J Immunol 2005, 174: 7217
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	Date
Brenda Teunissen	07/10/2019

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