

Datasheet: MCA2127SBUV575

BATCH NUMBER 100006667

Description:	MOUSE ANTI HUMAN CD25:StarBright UltraViolet 575
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	StarBright UltraViolet 575
Product Type:	Monoclonal Antibody
Clone:	MEM-181
Isotype:	IgG1
Quantity:	100 TESTS/0.5ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human	Human				
Product Form	Purified IgG conjugate	Purified IgG conjugated to StarBright UltraViolet 575 - liquid				
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)			
	StarBright UltraViolet 575	340	569			
Preparation	Purified IgG prepared	Purified IgG prepared by affinity chromatography on Protein A				
Buffer Solution	Phosphate buffered s	Phosphate buffered saline				
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Alt 0.1% Pluronic F68 0.1% PEG 3350					

Immunogen

Human PHA blasts; day 3 of culture.

External Database Links

UniProt:

P01589 Related reagents

Entrez Gene:

3559 IL2RA Related reagents

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3.X63 Ag8.653 myeloma cell line.

Specificity

Mouse anti Human CD25, clone MEM-181 recognizes the ~55 kDa alpha subunit of the human IL-2 receptor, also known as p55 or TAC antigen, CD25 is a type 1 transmembrane protein with two Sushi domains, also known as short concensus repeats (SCRs) or complement control protein (CCP) modules (Norman et al. 1991) located within its extracellular domain.

The IL-2 receptor exists in three forms. A high affinity form consisting of a non-covalently linked heterodimer composed of the alpha subunit (CD25) and the IL-2 receptor beta subunit also known as CD122 or p75, a medium affinity beta subunit (CD122) monomer or a low affinity alpha (CD25) subunit monomer.

CD25 is expressed by activated T lymphocytes and activated B lymphocytes responding to antigen or mitogen stimulation. CD25 is also expressed in some thymocytes and oligodendrocytes. In disease, elevated expression of CD25 in noted in a number of chronic inflammatory conditions, tuberculoid leprosy patients demonstrate markedly elevated levels of circulating CD25high FoxP3+ regulatory T cells (T-regs) (Attia et al. 2010).

Elevated levels of CD25 antigen expression are often seen in cases of <u>non-Hodgkin 's lymphoma</u> and diffuse large B cell lymphoma (<u>Fujiwara et al.2013</u>).

Flow Cytometry

Use 5ul of the suggested working dilution to label 10⁶ cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

References

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- 2. Thorborn, G. *et al.* (2010) Increased sensitivity of CD4+ T-effector cells to CD4+CD25+ Treg suppression compensates for reduced Treg number in asymptomatic HIV-1 infection. PLoS One. 5: e9254.
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augment cell division in gammadelta T cells. J Immunol. 179: 6468-78.

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- 7. Nocentini, G. *et al.* (2014) Expansion of regulatory GITR + CD25 Low/- CD4 + T cells in systemic lupus erythematosus patients. <u>Arthritis Res Ther. 16: 444.</u>
- 8. Soukup, K. *et al.* (2015) The MAPK-Activated Kinase MK2 Attenuates Dendritic Cell-Mediated Th1 Differentiation and Autoimmune Encephalomyelitis. <u>J Immunol. 195 (2):</u> 541-52.
- 9. Kusunoki, Y. *et al.* (2010) T-cell immunosenescence and inflammatory response in atomic bomb survivors. Radiat Res. 174 (6): 870-6.
- 10. Bughani, U. *et al.* (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. <u>PLoS One. 12 (7): e0180088.</u>
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- 12. Boland, J.W. *et al.* (2014) A preliminary evaluation of the effects of opioids on innate and adaptive human *in vitro* immune function. BMJ Support Palliat Care. 4 (4): 357-67.
- 13. Luger, R. *et al.* (2013) Toll-like receptor 4 engagement drives differentiation of human and murine dendritic cells from a pro- into an anti-inflammatory mode. <u>PLoS One. 8 (2):</u> e54879.
- 14. Rezalotfi, A. *et al.* (2020) Gastrospheres as a Model of Gastric Cancer Stem Cells Skew Th17/Treg Balance toward Antitumor Th17 Cells. <u>J Immunol Res. 2020: 6261814.</u>
- 15. Thymianou, S *et al.* (2019) MBP7285 on Human Tcell Activation <u>Mobile health</u> Knoledge 21 Jul

Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.	
Guarantee	12 months from date of despatch	
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and relate counterparts	ed U.S. and foreign
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA2127SBUV575 20471	
Regulatory	For research purposes only	

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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