

Datasheet: MCA2127

BATCH NUMBER 1608

Description:	MOUSE ANTI HUMAN CD25
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-181
Isotype:	IgG1
Quantity:	0.2 mg

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	▪			1/50 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Approx. Protein Concentrations	IgG concentration 1 mg/ml
Immunogen	Human PHA blasts; day 3 of culture.
External Database Links	<p>UniProt: P01589 Related reagents</p> <p>Entrez Gene: 3559 IL2RA Related reagents</p>
RRID	AB_324271
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3.X63 Ag8.653 myeloma cell line.
Specificity	<p>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 consensus repeats (SCRs) or complement control protein (CCP) modules (Norman et al. 1991) located within its extracellular domain.</p> <p>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.</p> <p>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 is 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).</p> <p>Elevated levels of CD25 antigen expression are often seen in cases of non-Hodgkin 's lymphoma and diffuse large B cell lymphoma (Fujiwara et al.2013).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Prager, E. <i>et al.</i> (2001) Induction of hyporesponsiveness and impaired T lymphocyte activation by the CD31 receptor:ligand pathway in T cells. J Immunol. 166 (4): 2364-71. 2. Thorborn, G. <i>et al.</i> (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. 3. Cutler, A.J. <i>et al.</i> (2010) Umbilical cord-derived mesenchymal stromal cells modulate monocyte function to suppress T cell proliferation. J Immunol. 185: 6617-23. 4. Lawson, J.M. <i>et al.</i> (2008) Increased resistance to CD4+CD25hi regulatory T

- cell-mediated suppression in patients with type 1 diabetes. [Clin Exp Immunol. 154: 353-9.](#)
5. Holderness, J. *et al.* (2007) Select plant tannins induce IL-2R α up-regulation and augment cell division in gammadelta T cells. [J Immunol. 179: 6468-78.](#)
 6. Zhang, Y. *et al.* (2013) Accelerated *in vivo* proliferation of memory phenotype CD4⁺ T-cells in human HIV-1 infection irrespective of viral chemokine co-receptor tropism. [PLoS Pathog. 9 \(4\): e1003310.](#)
 7. Nocentini, G. *et al.* (2014) Expansion of regulatory GITR⁺ CD25^{Low/-} CD4⁺ T cells in systemic lupus erythematosus patients. [Arthritis Res Ther. 16: 444.](#)
 8. Soukup, K. *et al.* (2015) The MAPK-Activated Kinase MK2 Attenuates Dendritic Cell-Mediated Th1 Differentiation and Autoimmune Encephalomyelitis. [J Immunol. 195 \(2\): 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. [PLoS One. 12 \(7\): e0180088.](#)
 11. Knutson, K.L. *et al.* (2015) Regulatory T cells, inherited variation, and clinical outcome in epithelial ovarian cancer. [Cancer Immunol Immunother. 64 \(12\): 1495-504.](#)
 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. [PLoS One. 8 \(2\): e54879.](#)

Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2127</p> <p>10040</p>
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M366230:200529'

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