

## Datasheet: MCA2127SBY720

**BATCH NUMBER 100007358**

<b>Description:</b>	MOUSE ANTI HUMAN CD25:StarBright Yellow 720
<b>Specificity:</b>	CD25
<b>Other names:</b>	IL-2R ALPHA CHAIN
<b>Format:</b>	StarBright Yellow 720
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-181
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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

#### Product Form

Purified IgG conjugated to StarBright Yellow 720 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Yellow 720	548	719

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

#### Preservative Stabilisers

0.09% Sodium Azide (NaN<sub>3</sub>)  
1% Bovine Serum Albumin  
0.1% Pluronic F68  
0.1% PEG 3350

0.05% Tween 20

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**Immunogen** Human PHA blasts; day 3 of culture.

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**External Database Links**

**UniProt:**

[P01589](#)    [Related reagents](#)

**Entrez Gene:**

[3559](#)    IL2RA    [Related reagents](#)

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

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**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 consensus 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 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](#)).

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](#)).

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**Flow Cytometry** Use 5µl of the suggested working dilution to label 10<sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

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**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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4. Lawson, J.M. *et al.* (2008) Increased resistance to CD4+CD25hi regulatory T cell-mediated suppression in patients with type 1 diabetes. [Clin Exp Immunol. 154: 353-9.](#)
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- augment cell division in gammadelta T cells. [J Immunol. 179: 6468-78.](#)
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  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.](#)
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  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.](#)
  14. Rezalotfi, A. *et al.* (2020) Gastrospheres as a Model of Gastric Cancer Stem Cells Skew Th17/Treg Balance toward Antitumor Th17 Cells. [J Immunol Res. 2020: 6261814.](#)
  15. Thymianou, S *et al.* (2019) MBP7285 on Human Tcell Activation [Mobile health Knowledge 21 Jul](#)

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2127SBY720">https://www.bio-rad-antibodies.com/SDS/MCA2127SBY720</a> 20471
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

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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](https://bio-rad-antibodies.com/datasheets)

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