

# PRODUCT INFORMATION



## CD25/Interleukin-2R $\alpha$ Chimeric Monoclonal Antibody (aa 116-122)

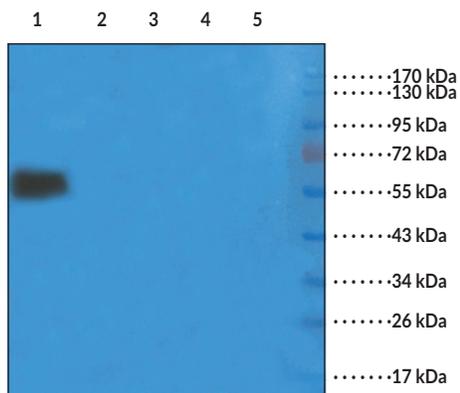
### (Clone Basiliximab)

Item No. 37170

#### Overview and Properties

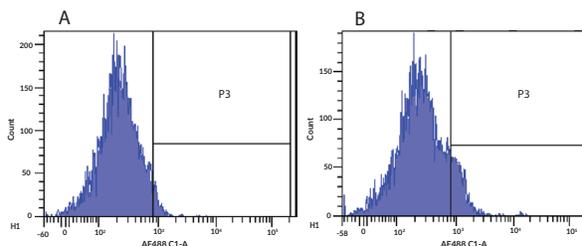
<b>Contents:</b>	This vial contains 200 $\mu$ g of protein A-affinity purified monoclonal antibody
<b>Synonyms:</b>	p55, Cluster of Differentiation 25, Interleukin-2 Receptor Subunit $\alpha$ , ILR2 $\alpha$ , Tac
<b>Immunogen:</b>	Recombinant human CD25/IL-2R $\alpha$
<b>Cross Reactivity:</b>	(+) CD25
<b>Species Reactivity:</b>	(+) Human, cynomolgus monkey, rhesus monkey
<b>Uniprot No.:</b>	P01589
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	$\geq$ 1 year
<b>Storage Buffer:</b>	PBS with 0.02% ProClin™ 300
<b>Clone:</b>	Basiliximab
<b>Host:</b>	Chimeric monoclonal antibody
<b>Isotype:</b>	IgG1 $\kappa$
<b>Applications:</b>	Flow cytometry (FC), Immunofluorescence (IF), Immunohistochemistry (IHC), and Western blot (WB); The optimal working concentration/dilution should be determined empirically.

#### Images

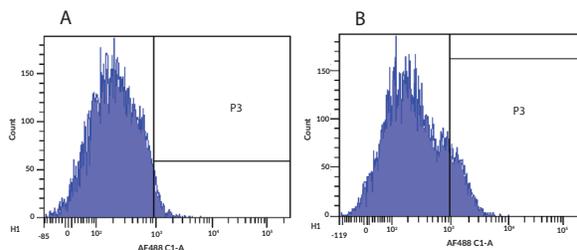


Lane 1: Human thyroid cancer  
Lane 2: Rat spleen  
Lane 3: Mouse lymph node  
Lane 4: Mouse thymus  
Lane 5: Rat small intestines

WB using CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab). Samples were resolved on a 10% SDS PAGE gel and blots probed with CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) at 1  $\mu$ g/ml before being detected by a secondary antibody.



Flow-cytometric analysis using CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab). Rhesus monkey lymphocytes were stained with an isotype control (panel A) or the rabbit-chimeric version of basiliximab (panel B) at a concentration of 1  $\mu$ g/ml for 30 mins at RT. After washing, bound antibody was detected using a AF488-conjugated donkey anti-rabbit antibody and cells analyzed on a FACSCanto™ flow cytometer.



Flow-cytometric analysis using CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab). Cynomolgus monkey lymphocytes were stained with an isotype control (panel A) or the rabbit-chimeric version of basiliximab (panel B) at a concentration of 1  $\mu$ g/ml for 30 mins at RT. After washing, bound antibody was detected using an AF488-conjugated donkey anti-rabbit antibody and cells analyzed on a FACSCanto™ flow cytometer.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

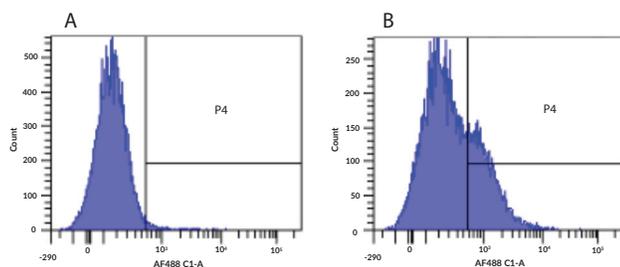
**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

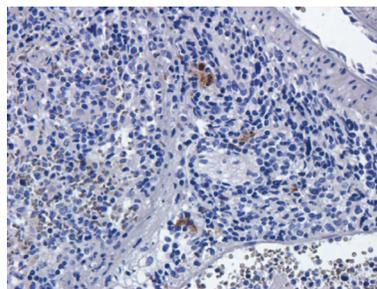
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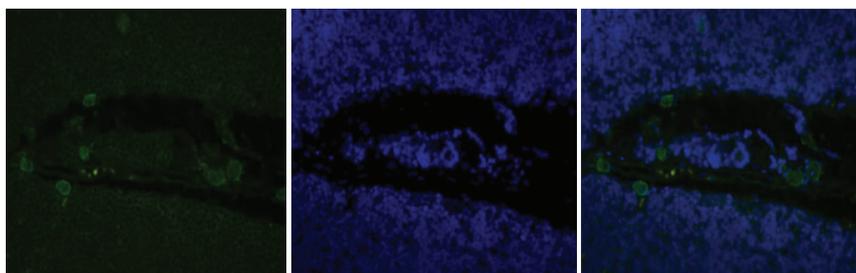
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Flow-cytometric analysis using CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab). Human lymphocytes were stained with an isotype control (panel A) or the rabbit-chimeric version of basiliximab (panel B) at a concentration of 1  $\mu$ g/ml for 30 mins at RT. After washing, bound antibody was detected using an AF488-conjugated donkey anti-rabbit antibody and cells analyzed on a FACSCanto™ flow cytometer.



Immunohistochemical (IHC) staining of formalin-fixed rat spleen slices using CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) at 5  $\mu$ g/ml. CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) shows some cross-reactivity with rat in IHC.



Immunofluorescent (IF) staining of rat thymus with Cayman's CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab). Formaldehyde-fixed rat thymus slices were stained with CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) at 5  $\mu$ g/ml and detected with a FITC-conjugated secondary antibody. CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) shows weak labeling of rat cells by IF.

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## Description

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CD25, also known as interleukin-2 receptor  $\alpha$  (IL-2R $\alpha$ ), is a transmembrane glycoprotein.<sup>1</sup> It is composed of two domains, D1 and D2, and associates with the CD122/IL-2 $\beta$  and CD132/IL-2 $\gamma$ c subunits to form the heterotrimeric IL-2 receptor. CD25 is expressed in activated T and B cells, regulatory T cells, and lymphokine-activated killer (LAK) cells.<sup>2-4</sup> Activation of IL-2R on T cells increases the expression of CD25 and leads to T cell proliferation and differentiation, as well as activation-induced T cell death.<sup>3,4</sup> *ILR2A* expression and CD25 protein levels in bone marrow are increased in patients with acute myeloid leukemia (AML) and associated with poor prognosis.<sup>3</sup> SNPs in *ILR2A* and elevated serum levels of a soluble form of CD25 are associated with an increased risk of Graves' disease.<sup>5</sup> Cayman's CD25/Interleukin-2R $\alpha$  Chimeric Monoclonal Antibody (aa 116-122) (Clone Basiliximab) was produced recombinantly from the original human-murine chimeric antibody and can be used for flow cytometry (FC), immunofluorescence (IF), immunohistochemistry (IHC), and Western blot (WB). The original antibody was generated by fusing human IgG1 $\kappa$  constant domains to the antigen-binding domain of a mouse anti-CD25 monoclonal antibody, which targets the ERIYHV peptide corresponding to amino acids 116 to 122 of human CD25.<sup>6,7</sup>

## References

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1. Stauber, D.J., Debler, E.W., Horton, P.A., *et al.* Crystal structure of the IL-2 signaling complex: Paradigm for a heterotrimeric cytokine receptor. *Proc. Natl. Acad. Sci. USA* **103**(8), 2788-2793 (2006).
2. Volkó, J., Kenesei, Á., Zhang, M., *et al.* IL-2 receptors preassemble and signal in the ER/Golgi causing resistance to antiproliferative anti-IL-2R $\alpha$  therapies. *Proc. Natl. Acad. Sci. USA* **116**(42), 21120-21130 (2019).
3. Li, J., Ran, Q., Xu, B., *et al.* Role of CD25 expression on prognosis of acute myeloid leukemia: A literature review and meta-analysis. *PLoS One* **15**(7), e0236124 (2020).
4. Waldmann, T.A. The IL-2/IL-2 receptor system: A target for rational immune intervention. *Immunol. Today* **14**(6), 264-270 (1993).
5. Lee, H.J., Li, C.W., Hammerstad, S.S., *et al.* Immunogenetics of autoimmune thyroid diseases: A comprehensive review. *J. Autoimmun.* **64**, 82-90 (2015).
6. Kovarik, J., Wolf, P., Cisterne, J.M., *et al.* Disposition of basiliximab, an interleukin-2 receptor monoclonal antibody, in recipients of mismatched cadaver renal allografts. *Transplantation* **64**(12), 1701-1705 (1997).
7. Binder, M., Vögtle, F.-N., Michelfelder, S., *et al.* Identification of their epitope reveals the structural basis for the mechanism of action of the immunosuppressive antibodies basiliximab and daclizumab. *Cancer Res.* **67**(8), 3518-3523 (2007).

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