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# Product Data Sheet

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## KIRAVIA Blue 520™ anti-human CD127 (IL-7R $\alpha$ )

**Catalog # /** 2356795 / 25 tests  
**Size:** 2356800 / 100 tests

**Clone:** A019D5

**Isotype:** Mouse IgG1,  $\kappa$

**Immunogen:** Recombinant human CD127

**Reactivity:** Human, Non-human primate, Other

**Preparation:** The antibody was purified by affinity chromatography and conjugated with KIRAVIA Blue 520™ under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific

□ Human peripheral blood lymphocytes were stained with CD3 APC and CD127 (clone A019D5) KIRAVIA Blue 520™ (left) or mouse IgG1,  $\kappa$  KIRAVIA Blue 520™ isotype control (right).

## Applications:

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5  $\mu$ L per million cells in 100  $\mu$ L staining volume or 5  $\mu$ L per 100  $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* KIRAVIA Blue 520™ has an excitation maximum of 495 nm, and a maximum emission of 520 nm.

**Application Notes:** Additional reported (for the relevant formats) application: proteogenomics<sup>1</sup>.

**Application References:** 1. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

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**Description:** CD127 is a 60-90 kD type I transmembrane glycoprotein also known as IL-7 receptor  $\alpha$  chain or IL-7R $\alpha$ . It forms a heterodimer with the common  $\gamma$  chain ( $\gamma$ c or CD132) which is shared with the receptors for IL-2, IL-4, IL-9, IL-13, IL-15, and IL-21. CD127 is expressed on immature B cells through early pre-B stage cells, thymocytes (except CD4/CD8 double positive thymocytes), peripheral T cells, and bone marrow stromal cells. CD127 has been reported to be a useful marker for identifying memory and effector T cells. Studies have shown that CD127 expression is down-modulated on Treg cells. It can be used as a marker for differentiation of Treg and conventional T cells. The ligation of IL-7 with its receptor is important for stimulation of mature and immature T cells as well as immature B cell proliferation and development.

**Antigen References:**

1. Sudo T, *et al.* 1993. *P. Natl. Acad. Sci. USA* 90:9125.
2. He YW and Malek TR. 1998. *Crit. Rev. Immunol.* 18:503.
3. Huster KM, *et al.* 2004. *P. Natl. Acad. Sci. USA* 101:5610.
4. Pillai M, *et al.* 2004. *Leukemia Lymphoma* 45:2403.
5. Morrissey PJ, *et al.* 1989. *J. Exp. Med.* 169:707.
6. Liu W, *et al.* 2006. *J. Exp. Med.* 203:1701.