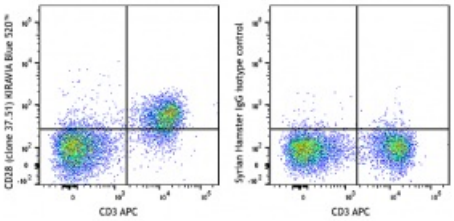
SONY

Product Data Sheet

KIRAVIA Blue 520™ anti-mouse CD28

Catalog # / Size:	1110675 / 25 µg 1110680 / 100 µg
Clone:	37.51
Isotype:	Hamster IgG
Immunogen:	C57BL/6 mouse T-cell lymphoma EL-4
Reactivity:	Mouse
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
Concentration:	0.2 mg/mL



C57BL/6 mouse splenocytes were stained with CD3 APC and anti-mouse CD28 (clone 37.51) KIRAVIA Blue 520™ (left) or Syrian Hamster IgG FITC 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 ≤ 1.0 µg per million cells in 100 µL volume. 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 applications (for the relevant formats) include: immunoprecipitation[1], *in vitro* costimulation of T and NK cells[1], *in vitro* blocking of allogeneic mixed leukocyte response and inhibition of MHC-unrestricted CTL cytotoxicity[3,4], *in vitro* induction of thymocyte differentiation[2,5-9,11], and immunohistochemical staining of acetone-fixed frozen sections. For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) (Cat. No. 102116).

Application References:

1. Gross JA, *et al.* 1992. *J. Immunol.* 149:380. (IP, Costim)
2. Cibotti R, *et al.* 1997. *Immunity* 6:245. (Costim)
3. Masten BJ, *et al.* 1997. *Am. J. Respir. Cell Mol. Biol.* 16:335. (Block)
4. Nishio M, *et al.* 1996. *J. Immunol.* 157:4347. (Block)
5. Zhang N and He Y-W, 2005. *J. Exp. Med.* 202:395. (Costim)
6. Terrazas LI, *et al.* 2005. *Intl. J. Parasitology.* 35:1349. (Costim)
7. Perchonock CE, *et al.* 2006. *Mol Cell Biol.* 26(16):6005. (Costim)
8. Wang W, *et al.* 2007. *J. Immunol.* 178:4885. (Costim)
9. Pua HH, *et al.* 2007. *J. Exp. Med.* 204:25. (Costim)
10. Perchonock CE, *et al.* 2007. *J. Immunol.* 179:1768.
11. Barbi J, *et al.* 2007. *Blood* 110:2215.
12. Milpied P, *et al.* 2011. *Blood* 118:2993. PubMed
13. Cunningham NR, *et al.* 2011. *Int Immunol.* 23:693. PubMed
14. Crispin JC, *et al.* 2012. *J. Immunol.* 188:3567. PubMed
15. Li CR, *et al.* 2014. *J Immunol.* 192:1425. PubMed
16. Blankenhaus B, *et al.* 2014. *PLoS Pathog.* 10:1003913. PubMed

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Description:

CD28 is a 44 kD glycoprotein, also known as Tp44 or T44. It is a member of the Ig superfamily, expressed on thymocytes, most peripheral T cells, and NK cells. In association with CD80 (B7-1) and CD86 (B7-2), CD28 acts as the second signal for T and NK cell activation and proliferation. The 37.51 antibody has been reported to augment *in vitro* T cell proliferation and cytokine production, and promote CTL development.

Antigen References:

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Lenschow DJ, *et al.* 1996. *Annu. Rev. Immunol.* 14:233.
3. Gross JA, *et al.* 1992. *J. Immunol.* 149:380.