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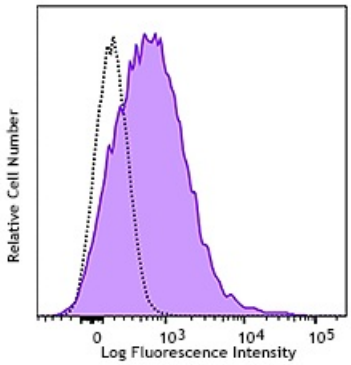
Product Data Sheet

PE/Cyanine7 anti-human CD178 (Fas-L)

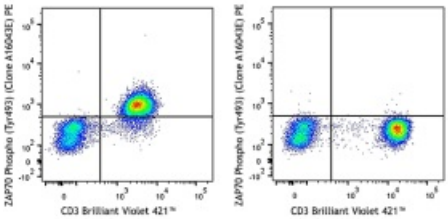
Catalog # / Size:	2132085 / 25 tests 2132090 / 100 tests
Clone:	NOK-1
Isotype:	Mouse IgG1, κ
Immunogen:	L5178Y mouse T lymphoma cells expressing recombinant human FasL
Reactivity:	Human, Non-human primate
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	VII 70322
Concentration:	Lot-specific



Human Fas Ligand transfected cells were stained with CD178 (Fas-L) (clone NOK-1) PE/Cyanine7 (filled histogram) or mouse IgG1, κ PE/Cyanine7 isotype control (open histogram).

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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.



Human peripheral blood lymphocytes were stimulated by CD3 and CD28 cross-linking (left) or unstimulated (right), fixed with Fixation Buffer (Cat. No. 2704005), permiabilized with Intracellular Staining Permeabilization Wash Buffer (Cat. No. 2705010), then intracellularly stained with CD3 Brilliant Violet 421™ and anti-ZAP70 Phospho (Tyr 493) (clone A16043E) PE. For CD3 and CD28 cross-linking, cells were incubated with anti-CD3 and anti-CD28 on ice for 15 minutes followed by Purified anti-Mouse Ig on ice for 15 minutes, and incubated at 37°C for 2 minutes.

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Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation[1,2], immunofluorescence microscopy[3], immunocytochemistry[2], blocking of Fas induced apoptosis[1], and Western blotting[11]. Fas Ligand is expressed at low density on activated cells. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 2132035) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 2132020) or biotinylated anti-mouse IgG second step (Cat. No. 2626515), followed by SAv-PE (Cat. No. 2626020)). In addition, applying matrix metalloproteinases (MMPS) inhibitor in the cell culture system will increase the FasL staining intensity.

Application References:

1. Kayagaki N, *et al.* 1995. *J. Exp. Med.* 182:1777.
2. Herr I, *et al.* 2000. *Cell Death Differ.* 7:129. (WB)
3. Bossi G, et al. 1999. Nature Medicine 5:90.
4. Andreola G, *et al.* 2002. *J. Exp. Med.* 195:1303.
5. Strauss L, *et al.* 2009. *J. Immunol.* 182:1469. PubMed
6. Li JH, *et al.* 2009. *Am J. Pathol.* 175:1124. PubMed
7. Zhao Q, *et al.* 2011. *Fitoterapia.* 82:735. PubMed
8. Kruger K, *et al.* 2011. *J. Appl. Physiol.* 110:1226. PubMed
9. Qin G, *et al.* 2012. *J. Infect. Dis.* PubMed
10. Khalid M, *et al.* 2012. *J. Virol.* 86:4906. PubMed
11. Qin G, *et al.* 2012. *J. Infect. Dis.* 205:1646. PubMed
12. Shrestha B, *et al.* 2012. *J. Virol.* 86:8937. PubMed
13. Mooren FC, *et al.* 2012. *J. Appl. Physiol.*113:1082. PubMed
14. Robinet P, *et al.* 2014. *J Immunol.* 192:5332. PubMed
15. Wang Y, *et al.* 2014. *J Endocrinol.* 222:151. PubMed

Description: CD178 is a 38-42 kD type II glycoprotein also known as Fas ligand and CD95L. CD178 belongs to the TNF superfamily and is expressed on activated T lymphocytes, NK cells, monocytes, and granulocytes. CD178 is also expressed on parenchymal cells of the retina and cornea, retinal pigment epithelial cells, and testis. The extracellular region of FasL can be cleaved by matrix metalloproteinases (MMPs) to give rise to a 26 kD soluble protein. CD178 binds to CD95, a member of the TNFR superfamily, to induce apoptosis. CD95/CD95L interactions play an important role in the maintenance of peripheral tolerance and survival.

Antigen References:

1. Suda T, *et al.* 1997. *J. Exp. Med.* 12:204.
2. Kayagaki N, *et al.* 1995. *J. Exp. Med.* 182:1777.
3. Tanaka M, *et al.* 1995. *EMBO J.* 14:1129.

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