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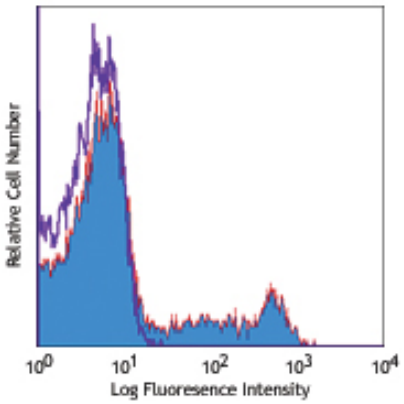
Product Data Sheet

Alexa Fluor® 647 anti-rat CD161

Catalog # / Size: 203110 / 100 µg
Clone: 10/78
Isotype: Mouse IgG1, κ
Immunogen: LEW rat splenic NK cells
Reactivity: Rat
Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5 mg/ml
Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



LOU rat splenocytes stained with 10/78 Alexa Fluor® 647

Applications:

Applications: FC - *Quality tested*
IHCIF - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.25 µg per 10^6 cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation[3] and immunohistochemical staining of acetone-fixed frozen sections[1,2]. Clone 10/78 is not suitable for immunohistochemical staining of formalin-fixed paraffin-embedded sections.

Application References:
1. Sedgwick JD, *et al.* 1998. *J. Immunol.* 160:5320. (IHC)
2. Tliba O, *et al.* 2002. *Vet. Res.* 33:327. (IHC)
3. Kraus E, *et al.* 1996. *Eur. J. Immunol.* 26:2582. (IP)
4. Treacy O, *et al.* 2012. *PLoS One.* 7:e42662. PubMed

Description: CD161 molecules, known as NKR-P1, are a family of about 30 kD type II transmembrane C-type lectin-like receptors and are expressed on the cell membrane as disulphide-linked homodimer. Rat NKR-P1 receptors are primarily expressed on NK cells, a subset of T cells, dendritic cells, and activated monocytes. Carbohydrate antigens with GalNac and GlcNac moieties are the ligands for NKR-P1 molecules. CD161 receptors are thought to be involved in the regulation of NK and NKT cell function. Three rat NKR-P1 genes have been described, NKR-P1A, NKR-P1B, NKR-P1B*(or NKR-P1D). 10/78, similar like 3.2.3 antibody, recognizes a common epitope of NKR-1A (CD161a) and NKR-P1B (CD161b). NKR-P1A does not contain ITIM structure and is an activating receptor, while NKR-P1B contains an ITIM and displays an inhibitory function.

Antigen References:
1. Ryan J, *et al.* 1991. *J. Immunol.* 147:3244.
2. Chambers WH, *et al.* 1989. *J. Exp. Med.* 169:1373.
3. Pospisil M, *et al.* 2000. *Int. J. Oncol.* 16(2):267.
4. Scriba A, *et al.* 1997. *J. Leukoc. Biol.* 62(6):741.
5. Brissette-Storkus CS, *et al.* 2002. *J. Leukoc. Biol.* 71(6):941.
6. Li J, *et al.* 2003. *Int. Immunol.* 15(3):411.

Related Products:

Product	Clone	Application
Cell Staining Buffer		FC, ICC, ICFC
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF

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