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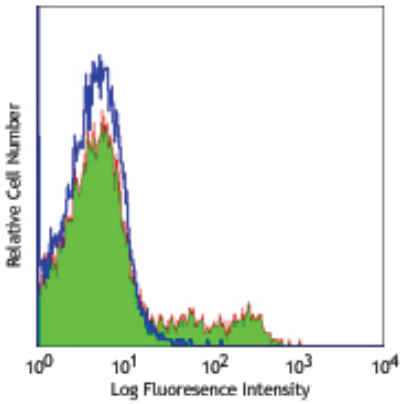
# Product Data Sheet

# Purified anti-rat CD161

**Catalog # / Size:** 203101 / 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.
**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.




*LOU rat splenocytes stained with purified 10/78, followed by anti-mouse IgG FITC*

# Applications:

**Applications:** FC - *Quality tested*
IP, IHC - *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 million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

**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. (FC) 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 |
|---|---|---|
| Purified Mouse IgG1, κ Isotype Ctrl | MOPC-21 | FC, ICFC, ICC, IF, IHC, IP, WB |
| Cell Staining Buffer | | FC, ICC, ICFC |



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