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# Product Data Sheet

# PE anti-human CD164

**Catalog # / Size:** 324808 / 100 tests

**Clone:** 67D2

**Isotype:** Mouse IgG1, κ

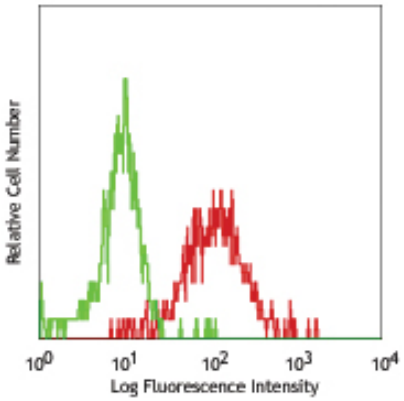
**Immunogen:** T-47D breast carcinoma line

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

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

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**




*Human peripheral blood monocytes stained with 67D2 PE*

# Applications:

**Applications:** FC - *Quality tested*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

**Application Notes:** Additional reported applications (for the relevant formats) include: Western blotting[2,3] under non-reducing conditions (detects an 80-100 kD protein as well as a high molecular weight aggregate of approximately 220 kD), and immunofluorescence[3].

**Application References:**
1. Watt SM, *et al.* 1998. *Blood* 92:849.
2. Watt SM, *et al.* 2000. *Blood* 95:3113.
3. Doyonnas R, *et al.* 2000. *J. Immunol.* 165:840.
4. Vogel W, *et al.* 2002. *Haematologica* 88:126.

**Description:** The 67D2 monoclonal antibody recognizes human CD164 also known as sialomucin CD164, MUC-24, and multi-glycosylated core protein 24. CD164 is a single pass transmembrane protein with short cytoplasmic tail that is highly N- and O-glycosylated. This protein contains sialic acid and a Ser-Gly motif that may serve as an attachment for a glycosaminoglycan side chain. Three splice variants of CD164 have been reported with apparent molecular weights ranging between 80-100 kD. CD164 is expressed in bone marrow, bone marrow stromal cells, and CD34+ hematopoietic cells myeloid and erythroid progenitors; and activated basophils. Expression has also been reported on a variety of carcinomas and leukemic cells and in the small intestine, colon, lung, and thyroid. CD164 plays a role in cell adhesion and proliferation and acts as a negative signaling molecule for hematopoietic progenitor cells. CD164 has also been reported to be involved in myogenic differentiation and cancer metastasis. The 67D2 antibody has been shown to be useful for the flow cytometric detection of human CD164, Western blotting under non-reducing conditions (detects an 80-100 kD protein as well as a high molecular weight aggregate of approximately 220 kD), and immunofluorescence.

**Antigen References:**
1. Zannettino ACW, *et al.* 1998. *Blood* 92:2613.
2. Havens AM, *et al.* 2006. *BMC Cancer* 6:195.
3. Lee YN, *et al.* 2001. *Mol. Cell. Biol.* 21:7696.

**Related Products:**

| Product | Clone | Application |
|---|---|---|
| Cell Staining Buffer | | FC, ICC, ICFC |
| PE Mouse IgG1, κ Isotype Ctrl (FC) | MOPC-21 | FC |
| Human TruStain FcX™ (Fc Receptor Blocking Solution) | | FC, ICC, ICFC |



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