**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for AM26635BT-N

## Itgax (alpha) Rat Monoclonal Antibody [Clone ID: 223H7]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | 223H7 |
| **Applications:** | FC |
| **Recommended Dilution:** | Cell separation: 20 µl/2.5x$10^7$ cells (ready for use).<br>Flow cytometry: 2 µg/2.5x$10^6$ cells.<br>For details see protocol below. |
| **Reactivity:** | Mouse |
| **Host:** | Rat |
| **Isotype:** | IgG2a |
| **Clonality:** | Monoclonal |
| **Immunogen:** | Murine DC from C57BL/6 mice |
| **Specificity:** | This antibody reacts with mouse CD11c. |
| **Formulation:** | PBS<br>Label: Biotin<br>State: Liquid Ig fraction<br>Stabilizer: 1% BSA<br>Preservative: 0.09% $NaN_3$ |
| **Concentration:** | lot specific |
| **Purification:** | Protein G agarose |
| **Conjugation:** | Biotin |
| **Storage:** | Store at 2-8 °C. |
| **Stability:** | Shelf life: one year from despatch. |
| **Gene Name:** | integrin alpha X |
| **Database Link:** | Entrez Gene 16411 Mouse<br>Q9QXH4 |

View online »

**Background:** The CD11c (integrin α X; ~150 kDa) glycoprotein non-covalently associates with CD18 (integrin β 2; ~95 kDa) to form the heterodimeric complement receptor type 4 ( CR4), which is involved in monocyte/granulocyte adhesion during inflammatory responses. The CD11c/CD18 receptor binds to CD54, iC3b and fibrinogen and plays a role in leukocyte adhesive interactions. CD11c/CD18 is also implicated in B cell proliferation and mediates B cell binding to fibrinogen. CD11c is commonly used as a marker for dendritic cells, but it is also expressed on macrophages, monocytes, granulocytes, NK cells, activated T and B lymphocytes and microglia.

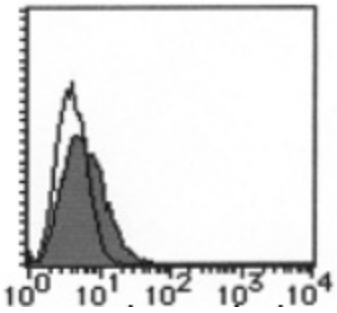
**Synonyms:** ITGAX, Integrin alpha-X, Leu M5

**Note:** This product was originally produced by MBL International.

Protocol: Cell separation using magnetic beads
1) Isolate single cell suspension from mouse spleen by standard preparation method.
2) Wash the cells twice with washing buffer [PBS containing 0.5% BSA and 2 mM EDTA].
3) Resuspend the cells with washing buffer (1x10 8 cells/mL).
4) Add 20 µ L of anti-mouse CD16/32 antibody to the cell suspension for blocking FcR, and incubate for 15 minutes at 4 o C.
5) Add 2 µ g per 2.5x10 7 cells of Biotin labeled mouse CD11c (223H7) to the cell suspension, and incubate for 30 minutes at 4 o C. Remove supernatant by careful aspiration.
6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at 4 o C. Remove supernatant by careful aspiration.
7) Resuspend cell pellet and label with streptavidin or anti-biotin magnetic beads according to the manufacturer's recommendation.
8) Wash the separated cells with washing buffer.
9) Add 20 µ L of 1:40 diluted anti-mouse CD16/32 antibody with washing buffer to the cell suspension, and incubate for 10 minutes at 4 o C.
10) Add 20 µ L of PE labeled mouse CD11c (10 µ g/ml). Mix well and incubate for 1 hour at 4 o C.
11) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
12) Resuspend the cells with 500 µ L of the washing buffer and analyze by a flow cytometer. (Positive control for Flow cytometry; mouse splenocyte)

Flow cytometric analysis for adherent cells
We usually use Fisher tubes or equivalents as reaction tubes for all steps after 2).
1) Detach the cells from culture dish by cell dissociation buffer.
2) Wash the cells 3 times with washing buffer [PBS containing 0.5% BSA and 2 mM EDTA].
3) Resuspend the cells with washing buffer (5x10 6 cells/mL).
4) Add 50 µ L of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at 4 o C. Remove supernatant by careful aspiration.
5) Add 20 µ L of 1:40 diluted anti-mouse CD16/32 antibody with washing buffer to the cell suspension. Mix well, and incubate for 10 minutes at 4 o C.
6) Add 1 µ g of the Biotin labeled Mouse CD11c monoclonal antibody (223H7). Mix well, and incubate for 30 minutes at 4 o C.
7) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at 4 o C. Remove supernatant by careful aspiration.
8) Add 30 µL of 1:40 diluted PE conjugated streptavidin with the washing buffer. Mix well and incubate for 15 minutes at 4 o C.
9) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
10) Resuspend the cells with 500 µ L of the washing buffer and analyze by a flow cytometer.

## Product images:




Flow cytometric analysis of Mouse CD11c expression on JAWSII cells. Open histogram indicates the reaction of isotypic control to the cells. Shaded histogram indicates the reaction of AM26635BT-N to the cells.