

PE anti-mouse CD96 (TACTILE) Antibody

Catalog# / Size	166803 / 25 µg 166804 / 100 µg
Clone	W20256B
Regulatory Status	RUO
Other Names	Tactile (T cell-activated increased late expression)
Isotype	Rat IgG2a, κ
Description	<p>CD96, also known as TACTILE (T cell-activated increased late expression), is a type I transmembrane glycoprotein, belonging to the Ig superfamily. It is expressed on NK cells and T cells (upregulated after activation), but not on normal B cells and myeloid cells. CD96 is also found on some acute myeloid leukemia (AML) cells, and T cell acute lymphoblastic leukemia (T-ALL), as a leukemia stem cell-specific marker. A soluble form of CD96 has been found in serum. Human CD96, but not mouse CD96, is expressed as two isoforms due to alternative splicing. The main ligand of CD96 is CD155 (PVR), along with CD226 (DNAM-1) and TIGIT, and the binding is species-specific. Mouse CD96 has been reported to interact with nectin-1 (CD111), but human CD96 does not. CD96 may play an inhibitory role in immune responses. In CD96 deficient mice, NK cells produce more IFN-γ upon LPS treatment. In addition, CD96 negatively regulates NK cell function in mice, and blockade of CD96 with antibodies promotes anti-tumor responses and anti-metastatic activity in combination with anti-CTLA-4 or anti-PD-1. CD96 is considered to mediate activated T cell and NK cell adhesion to CD155-expressing target cells. CD96 also counterbalances CD226, which activates NK cell-mediated cytotoxicity via competing CD155 binding.</p>

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant mouse CD96 (TACTILE)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
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 ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Clone W20256B blocks the staining by clones 3.3 and QA19A37, while clones 3.3 and QA19A37 partially block the staining by clone W20256B.
RRID	AB_3675020 (BioLegend Cat. No. 166803) AB_3675020 (BioLegend Cat. No. 166804)

Antigen Details

Structure	Type 1 single chain membrane glycoprotein of 569 amino acids. Member of the Ig superfamily with three Ig domains and extensive glycosylation.
Distribution	Positive on most peripheral T cells, NK cells and upregulated when activated
Function	CD96 is involved in NK cell adhesion and cytotoxicity via CD155.
Interaction	NK cells, NKT cells, T cells
Ligand/Receptor	CD155, nectin 1
Cell Type	NK cells, T cells
Biology Area	Immunology, Inhibitory Molecules
Molecular Family	Adhesion Molecules, CD Molecules

Antigen References

1. Wang PL, *et al.* 1992. *J Immunol.* 148:2600-8.
2. Seth S, *et al.* 2007. *Biochem Biophys Res Commun.* 364: 959-65.
3. Blake SJ, *et al.* 2016. *Clin Cancer Res.* 22:5183-5188.
4. Georgiev H, *et al.* 2018. *Front Immunol.* 9:1072.
5. Mittal D, *et al.* 2019. *Cancer Immunol Res.* 7:559-571.
6. Chiang EY, *et al.* 2020. *Eur J Immunol.* 50: 891-902.

Gene ID [84544](#)

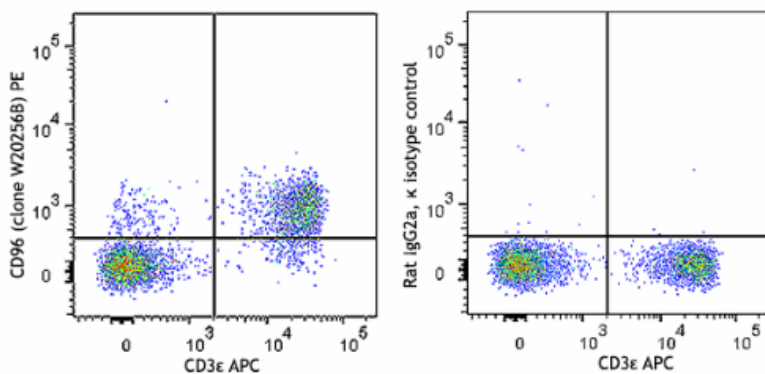
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse CD96 (TACTILE), PE anti-mouse CD96 (TACTILE) Antibody

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse CD3ε (clone 145-2C11) APC and anti-mouse CD96 (TACTILE) (clone W20256B) PE (left) or rat IgG2a, κ PE isotype control (right).

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