

Purified anti-human CD312 (EMR2) Antibody

Catalog# / Size	373102 / 100 µg
Clone	W15101A
Regulatory Status	RUO
Other Names	Epidermal growth factor module-containing mucin-like receptor 2, EMR2, AGRE2, ADGRE2
Isotype	Rat IgG2a, κ
Description	CD312, also known as Epidermal growth factor module-containing mucin-like receptor 2 (EMR2), is a 90 kD type I protein, a member of the Epidermal Growth Factor-seven transmembrane (EGF-TM7) family. Its extracellular region consists of five tandem EGF-like adhesion domains and a mucin-like stalk domain containing a G-protein proteolytic site, while the C-terminal region consists of a seven-pass transmembrane domain. CD312 is expressed by myeloid cells, dendritic cells, and activated lymphocytes. CD312 contributes to the interaction of macrophages, dendritic cells and activated T cells with B cells; it is involved in neutrophil chemotaxis, degranulation and adhesion, and release of inflammatory cytokines by macrophages. The ligands of CD312 are the glycosaminoglycans (GAG) chondroitin sulphate, and dermatan sulphate.

Product Details

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Recombinant protein fragment containing the first extracellular region of human EMR2 (24-540 a.a.).
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested IHC-F - Verified
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 ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. For immunohistochemical staining on frozen tissue sections, the suggested use of this reagent is 5.0 - 10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
RRID	AB_2650810 (BioLegend Cat. No. 373102)

Antigen Details

Structure	Member of the Epidermal Growth Factor-seven transmembrane (EGF-TM7) family, type I protein, its extracellular region consists of five tandem EGF-like adhesion domains and a mucin-like stalk domain containing a G-protein proteolytic site; the C-terminal re
Distribution	Expressed by myeloid cells, dendritic cells, and activated lymphocytes.
Function	Involved in neutrophil chemotaxis, degranulation and adhesion. Promotes the release of inflammatory cytokines by macrophages. Contributes in the interaction of macrophages, dendritic cells and activated T cells with B cells.

Ligand/Receptor	Chondroitin sulphate, dermatan sulphate.
Cell Type	Dendritic cells, Lymphocytes, Neutrophils
Biology Area	Cell Adhesion, Cell Biology, Immunology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Boyden SE, <i>et al.</i> 2016. <i>N. Engl. J. Med.</i> 374:656. 2. Lewis SM, <i>et al.</i> 2015. <i>Clin. Exp. Immunol.</i> 182:184. 3. Huang YS, <i>et al.</i> 2012. <i>Mol. Cell Biol.</i> 32:1408. 4. Rutkowski MJ, <i>et al.</i> 2011. <i>J. Neurooncol.</i> 105:165. 5. van Eijk M, <i>et al.</i> 2010. <i>Immunol. Lett.</i> 129:64.
Gene ID	30817

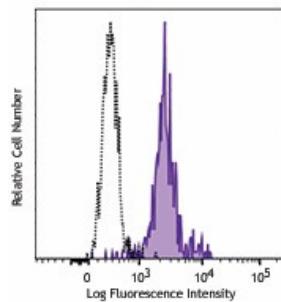
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

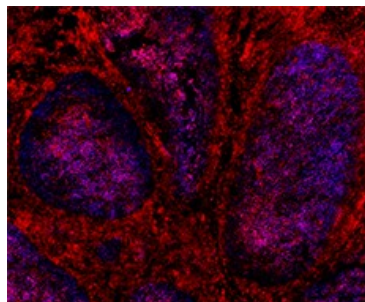
Other Formats

Purified anti-human CD312 (EMR2), PE/Cyanine7 anti-human CD312 (EMR2), FITC anti-human CD312 (EMR2)

Product Data



Human peripheral blood monocytes were stained with purified CD312 (clone W15101A, filled histogram) or purified rat IgG2a, κ isotype control (open histogram), followed by anti-rat IgG-PE.



Human frozen tonsil section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 µg/ml of purified anti-human CD312 (clone W15101A) and 10 µg/ml of Brilliant Violet 421™ anti-human CD19 (clone SJ25C1) (blue) overnight at 4°C, followed by 2.5 µg/ml of Alexa Fluor® 647 Goat anti-rat IgG (clone Poly4054) (red) for two hours at room temperature. The image was captured by 10X objective.

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