

Technical Data Sheet

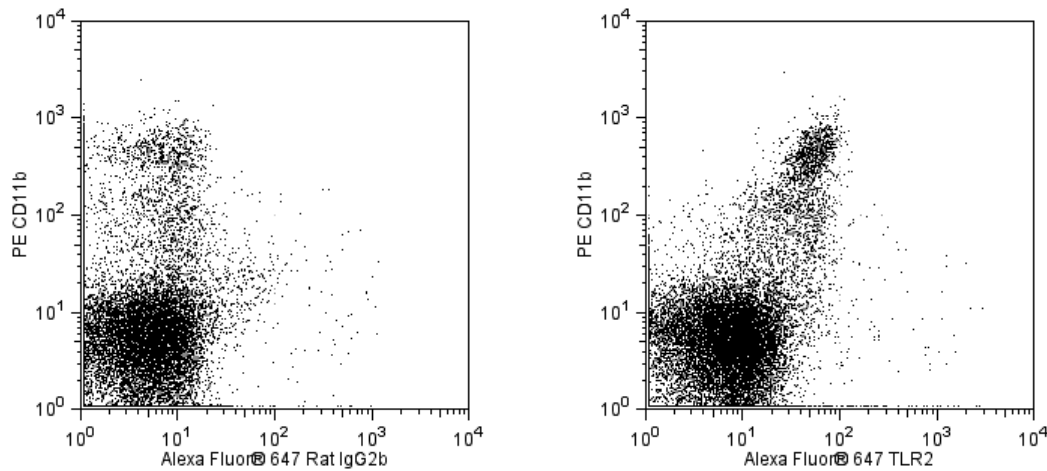
Alexa Fluor® 647 Rat anti-Mouse CD282

Product Information

Material Number:	562625
Alternate Name:	TLR2; Tlr2; Toll-like receptor 2; Ly105
Size:	0.05 mg
Concentration:	0.2 mg/ml
Clone:	6C2
Immunogen:	Mouse TLR2 Transfected Cell Line
Isotype:	Rat IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 6C2 monoclonal antibody specifically binds to the mouse Toll like receptor 2 (TLR2) that is also known as CD282. CD282 is a type 1 transmembrane glycoprotein and a TLR family member. It is expressed on the surface of monocytes, macrophages, dendritic cells, granulocytes, endothelial and epithelial cells. This pattern recognition receptor is important for sensing and transducing signals in response to microbial cell wall components including lipoproteins, peptidoglycans and lipoteichoic acid. CD282 signals through intracellular MYD88 and TRAF6 leading to NF-kappa-B activation and the production of cytokines and inflammatory mediators by responding cells. TLR2 plays a major role in mediating inflammatory and innate immune responses.



Multicolor flow cytometric analysis of mouse TLR2 expression in spleen cells. BALB/c splenocytes were stained with PE Rat Anti-Mouse CD11b (Cat. No. 553311/557397/561689) and either Alexa Fluor® 647 Rat IgG2b, κ Isotype Control (Cat. No. 557691; Left Panel) or Alexa Fluor® 647 Rat Anti-Mouse TLR2 (Cat. No. 562625; Right Panel). Two color flow cytometric dot blots showing the correlated expression pattern of TLR2 (or Ig Isotype control staining) and CD11b were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
557691	Alexa Fluor® 647 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
553311	PE Rat Anti-Mouse CD11b	0.2 mg	M1/70
557397	PE Rat Anti-Mouse CD11b	0.1 mg	M1/70
561689	PE Rat Anti-Mouse CD11b	25 µg	M1/70

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
8. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
9. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Heine H, Kirschning CJ, Lien E, Monks BG, Rothe M, Golenbock DT. Cutting edge: cells that carry A null allele for toll-like receptor 2 are capable of responding to endotoxin. *J Immunol.* 1999; 162(12):6971-6975. (Biology)

Matsuguchi T, Takagi K, Musikacharoen T, Yoshikai Y. Gene expressions of lipopolysaccharide receptors, toll-like receptors 2 and 4, are differently regulated in mouse T lymphocytes. *Blood.* 2000; 95(4):1378-1385. (Biology)

Underhill DM, Ozinsky A, Hajjar AM, et al. The Toll-like receptor 2 is recruited to macrophage phagosomes and discriminates between pathogens. *Nature.* 1999; 401(6755):811-815. (Biology)

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