

Catalog Number: 10039-R023-P

General Information	
Immunogen:	Recombinant Human CD27 / TNFRSF7 protein (Catalog#10039-H03H)
Reagents:	PE-conjugated rabbit monoclonal antibody
Specificity:	Human CD27 / TNFRSF7
Clone ID:	023
Ig Type:	Rabbit IgG
Applications:	Flow Cytometry, WB
Concentration:	5 µl/Test, 0.2 mg/ml
Formulation:	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
Storage:	2 °C - 8 °C in the dark

Preparation

This antibody was obtained from a rabbit immunized with purified, recombinant human CD27 (rh CD27; Catalog#10039-H03H; Met 1-Ile 192; NP_001233.1) and conjugated with PE under optimum conditions, the unreacted PE was removed.

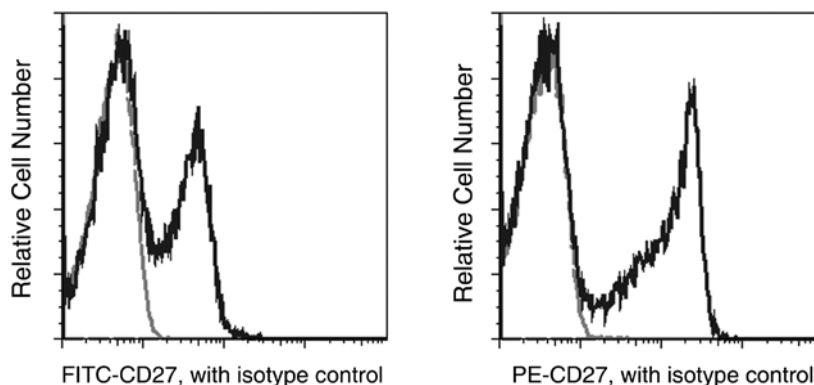
Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze !**

Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal

Applications

Flow Cytometry – Human lymphocytes were stained with anti human CD27-R023 (solid line) or rabbit IgG isotype control (dashed line).



Flow cytometric analysis of anti-human CD27 on human whole blood lymphocytes.
 left panel: Catalog#10039-R023-P, FITC Rabbit anti-Human CD27 antibody
 right panel: Catalog#10039-R023-P, PE Rabbit anti-Human CD27 antibody

Flow cytometry was performed on a BD FACSCalibur flow cytometry system. Please refer to www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html for technical protocols.

Western blot – This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human CD27 in WB. Use of this antibody under reducing conditions is not recommended.

Specificity

Human CD27 / TNFRSF7

Has cross-reactivity in ELISA with
 Mouse CD27

No cross-reactivity in ELISA with

Human TNFRSF8/CD30

Human CD40

Human FAS

Human TNFR1

Human BAFF

Mouse HVEM

Rat FAS

Human 4-1BB

Human DR6

Human HVEM/TNFRSF14

Human TNFR2

Human RELT

Mouse FAS

Background

CD27, also known as TNFRSF7, is a member of the TNF-receptor superfamily limited to cells of the lymphoid lineage, and exists as both a dimeric glycoprotein on the cell surface and as a soluble protein in serum. As a T and B cell co-stimulatory molecule, the activity of CD27 is governed by its TNF-like ligand CD70 on lymphocytes and dendritic cells. The CD27-CD70 interaction is required for Th1 generation responses to differentiation signals and long-term maintenance of T cell immunity, and meanwhile, plays a key role in regulating B-cell differentiation, activation and immunoglobulin synthesis. The CD27 receptor transduces signals and subsequently leads to the activation of NF-kappaB and MAPK8/JNK, and during which, adaptor proteins TRAF2 and TRAF5 have been shown to mediate the signaling processes. In addition, a proapoptotic protein named SIVA, is capable of binding the cytoplasmic tail of CD27 and exerts action in the process of apoptosis.

References

1. Borst. J. et al., 2005, Curr. Opin. Immunol. 17: 275-281.
2. Kobata. T. et al., 1995, Proc. Natl. Acad. Sci. 92: 11249-53.
3. Jacquot, S., 2000, Immunol Res. 21:23-30.
4. Arens, R. et al., 2004, J. Immunol. 173: 3901-3908.
5. Akiba, H. et al., 1998, J. Biol. Chem. 273: 13353-13358 .
6. Fortin, A. et al., 2004, J. Biol. Chem. 279: 28706-28714.