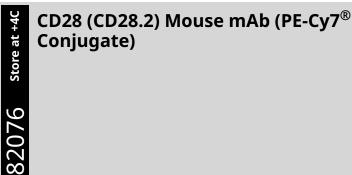
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| Applications: FC-L | Reactivity: H | Sensitivity: Endogenous | Source/Isotype: Mouse IgG1 kappa | UniProt ID: #P10747 | Entrez-Gene Id: 940 | | |
|--|------------------|---|--|-------------------------------|------------------------|--|--|
| Product Usage Information | | Application Flow Cytometry (Live) | | | Dilution 1:20 | | |
| Storage | | Supplied in 10 mM NaH ₂ PO ₄ , 150 mM NaCl, 0.09% NaN ₃ , 0.1% gelatin, pH7.2. This product is stable for 6 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze. | | | | | |
| Specificity/Sensit | tivity | CD28 (CD28.2) Mouse mAb (PE-Cy7 [®] Conjugate) recognizes endogenous levels of total CD28 protein. This antibody detects an epitope within the extracellular domain. | | | | | |
| Source / Purifica | tion | This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. | | | | | |
| Description | | This Cell Signaling Technology antibody is conjugated to PE-Cy7 [®] and tested in-house for direct flow cytometric analysis in human cells. | | | | | |
| Background | | CD28 is a transmembrane glycoprotein expressed by T cells as well as some other hematopoietic cells (1, 2). T cell activation requires T cell receptor (TCR) recognition of antigen presented in the context of MHC molecules. CD28 acts as a T cell costimulatory receptor, and interaction of CD28 with its ligands CD80 or CD86 provides the second signal required for naïve T cell activation (3-5). Activation of naïve T cells in the absence of CD28 stimulation can result in a state of T cell anergy, or unresponsiveness (3). CD28 signals through cytoplasmic phospho-tyrosine motifs that bind several SH2 or SH3 domain-containing proteins involved in T cell activation (2). Recently, CD28 was demonstrated to be a preferred target of PD-1-mediated dephosphorylation. Consistently, CD28 expression was required for T cell proliferation following PD-1 blockade and CD28 stimulation was required for effective anti-PD-1 cancer immunotherapy in mice (6, 7). Several CD28 isoforms are produced by alternative splicing (8). | | | | | |
| Background References 1. Aruffo, A. and Seed, B. (1987) Proc Natl Acad Sci U S A 2. Esensten, J.H. et al. (2016) Immunity 44, 973-88. 3. Harding, F.A. et al. (1992) Nature 356, 607-9. 4. Azuma, M. et al. (1993) Nature 366, 76-9. 5. Linsley, P.S. et al. (1990) Proc Natl Acad Sci U S A 87, 5 6. Hui, E. et al. (2017) Science 355, 1428-1433. 7. Kamphorst, A.O. et al. (2017) Science 355, 1423-1427. 8. Magistrelli, G. et al. (1999) Biochem Biophys Res Common | | | | 87, 5031-5. | | | |
| Species Reactivit | y | Species reactivity is determined by testing in at least one approved application (e.g., western blot). | | | | | |
| Applications Key | | FC-L: Flow Cytometry (Live) | | | | | |
| Cross-Reactivity | Key | H: Human | | | | | |
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