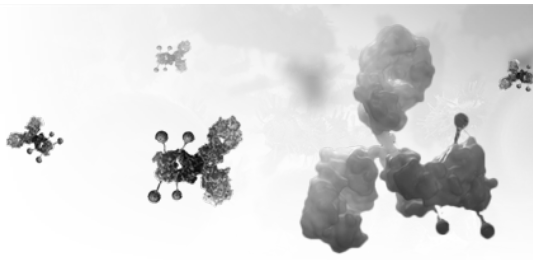

Mouse Anti-Human CD28 Monoclonal Antibody, clone 48518 [Functional Grade] (CABT-Z408M)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects human CD28 in Western blots. In Western blots, this antibody does not cross-react with recombinant mouse (rm) CD28, rhCTLA4, or rmCTLA4.
Immunogen	S. frugiperda insect ovarian cell line Sf 21-derived recombinant human CD28 (Asn19-Pro152).
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	48518
Purification	Purified
Conjugate	Functional Grade
Applications	WB, FuncS, Binding Assay, Bioassay, ELISA, FC, ICC, Neut, Stimulation, Tissue Culture Recommended concentration: WB: 1 ug/mL FuncS: 0.2-0.6 ug/mL
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Format	Lyophilized
Size	100 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. Endotoxin Level<0.10 EU per

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

	1 µg of the antibody by the LAL method.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	Wet ice

BACKGROUND

Introduction	CD28 and CTLA-4, together with their ligands, B7-1 and B7-2, constitute one of the dominant costimulatory pathways that regulate T and B cell responses. CD28 and CTLA-4 are structurally homologous molecules that are members of the immunoglobulin (Ig) gene superfamily. Both CD28 and CTLA-4 are composed of a single Ig V-like extracellular domain, a transmembrane domain and an intracellular domain. CD28 and CTLA-4 are both expressed on the cell surface as disulfide-linked homodimers or as monomers. The genes encoding these two molecules are closely linked on human chromosome 2 and mouse chromosome 1. Mouse CD28 is expressed constitutively on virtually 100% of mouse T cells and on developing thymocytes. Cell surface expression of mouse CD28 is down-regulated upon ligation of CD28 in the presence of PMA or PHA. In contrast, CTLA-4 is not expressed constitutively but is up-regulated rapidly following T cell activation and CD28 ligation. Cell surface expression of mouse CTLA-4 peaks approximately 48 hours after activation. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28. CD28/B7 interaction has been shown to prevent apoptosis of activated T cells via the upregulation of Bcl-xL. CD28 ligation has also been shown to regulate Th1/Th2 differentiation.
Keywords	CD28;CD28 molecule;CD28 antigen (Tp44);T-cell-specific surface glycoprotein CD28;T cell specific surface glycoprotein;CD28 antigen;Tp44;MGC138290

GENE INFORMATION

Gene Name	CD28
Entrez Gene ID	940
UniProt ID	P10747

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