

Datasheet

Anti-human CD28**Humanized anti-human CD28**

Product	Description	Catalogue-No.	Size
Anti-human CD28	Lyophilized monoclonal antibody	CB-1118500	500 µg

Product description

CD28 and CTLA-4, together with their ligands, B7-1 and B7-2, constitute one of the dominant co-stimulatory 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 up regulation of Bcl-xL. CD28 ligation has also been shown to regulate Th1/Th2 differentiation.

Storage conditions and stability

Lyophilized CD28 is stable at 2 – 8 °C for 24 months from production date.

The lyophilized CD28 should be reconstituted in sterile distilled water to your desired concentration. Should be stored in working aliquots at -20°C when reconstituted.

Composition

Sourced from CHO cells. Protein A purified from cell culture supernatant (Immunogen: human recombinant CD28). Lyophilized from a 0.2 µm filtered solution in PBS with HSA

Purity: > 95.0%

Biological activity: reactive for human cells.

Recommended concentration: For ELISA 1:5,000 – 1:10,000

For T-cell stimulation: 1 – 10 µg/ml (100 µl/well)

References

1. Lenschow, D.J. et al. (1996) Annu. Rev. Immunol. 14:233.
2. Hathcock, K.S. and R.J. Hodes (1996) Advances in Immunol. 62:131.

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.