MONOCLONAL ANTIBODY CD28

Cat. No.	Form	Quantity	Presentation
1235	Purified	100 tests	Liquid 2 ml
1236	FITC	100 tests	Liquid 2 ml
1376	Purified	0.2 mg	Freeze-dried
2071	PE	100 tests	Liquid 2ml

Clone CD28.2

Isotype IgG1 (mouse)

Immunogen Transfected murine cell line.

Hybridoma Myeloma X63 Ag8 653 x Balb/c spleen cells.

Specificity

CD28 is a T-cell surface homodimeric 44 kDa molecule that belongs to the Ig superfamily (1).

CD28 is involved in cell adhesion T-B through the binding to its ligand B7/BB1 which is also the ligand for CTLA-4. CD28-B7 interaction is an important cosignal that allows T-cell proliferation and lympnokine production
CD28 is associated to a PI3 kinase activity (2).

The majority of $CD4^+$ T-cells and 50 % of $CD8^+$ T-cells express CD28 (3)

The CD28.2 monoclonal antibody induces T-cell proliferation in costimulation with CD2 monoclonal antibodies (2). It also inhibits the $CD4^+$ proliferation in the allogeneic T-cell response (2).

This antibody has been studied at the Vth International Workshop on Human Leucocyte Differentiation Antigens in Boston (1993)

Applications

Flow cytometry

Signal transduction T-lymphocyte activation studies

T and B cell adhesion studies

Buffer

Freeze-dried forms: 1 mg/ml bovine serum albumin in phosphate buffered saline

Liquid forms: 2 mg/ml bovine serum albumin in phosphate buffered saline containing 0.1% sodium azide.

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Reconstitution and Storage

The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 ml of distilled water. No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date. Aliquotting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C.

The purified liquid form should be stored at 2 - 8°C.

The conjugated forms should not be frozen and should be stored in the dark at 2 - 8°C.

Recommended Procedures

Flow cytometry

Freeze-dried form: 2 µg/5x10^5 cells/test
Liquid form: 20 µl/5x10^5 cells/test.

References

1) McMichael, A.J. and Gotch, F.M., "T-cell antigens: new previously defined clusters", 1987, in Leucocyte Typing III, White Cell Differentiation Antigens, A.J. McMichael et al., Eds., Oxford University Press, p. 30-62.

2) Olive D., Cerdan C., Costello R., Sielleur I., Ragueneau M., Pages F., Klasen S Nunès J , Imbert J., "CD28 and CTLA-4 cluster report", 1995,in Leucocyte Typing V, White Cell Differentiation Antigens, S F Schlossman et al , Eds., Oxford University Press, p. 360-370.

3) Tan, R., Teh, S.J., Ledbetter, J.A, Linsley, P., Teh, H.S. "B7 costimulates proliferation of $CD4^-8^+$ T lymphocytes but is not required for the deletion of immature $CD4^+8^+$ Thymocytes", 1992, J Immunol., **149**, 3217-3224.

4) Nunès J., Klasen S , Ragueneau M., Pavon C , Couez D., Mawas C., Bagnasco M., Olive D., "CD28 mAbs with distinct binding properties differ in their ability to induce T cell activation: analysis of early and late activation events", 1993, International Immunology, **5**, 3, 311-315