

## Monoclonal anti-human CD137 (4-1BB) Fab monomer\*

**mAb name/Clone:** 4B4-1

**Isotype:** Mouse IgG1 $\kappa$

**Immunogen:** Ectodomain of human 4-1BB fusion protein s

**CATALOG#:** 360-580

**QUANTITY:** 100  $\mu$ g

**CONCENTRATION:** 0.9 mg/ml

**INFORMATION:** Human CD137 (4-1BB) is expressed on activated T cells within 24-48 hours of activation. CD137 is a type I membrane protein and a member of the tumor necrosis factor receptor superfamily. CD137 appears to be important for T cell proliferation and survival. Antibody 4B4-1 recognizes the CD137 molecule of about 35 kd from activated T cells.

**References:** M.R. Alderson, et al, (1994) Eur J Immunol **24**: 2219-2227. H.J. Gruss, and S.K. Dower, (1995) Blood **85**: 3378-3404. B.A. Garni-Wagner, et al, (1996) Cellular Immunol **169**: 91-98. H. Schwarz, et al, (1996) Blood **87**: 2839-2845.

**STORAGE CONDITIONS:** Store at 2 - 5°C. Open under aseptic conditions. Freeze/Thawing is not recommended.

**PRODUCT STABILITY:** Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: \_\_\_\_\_

**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl. Product was sterile filtered and vialled under aseptic conditions. No preservative added.

**PRODUCTION:** Antibody was Protein A purified from (low FBS containing) tissue culture supernatant. Immunoglobulin was enzymatically cleaved using Immobilized Ficin. Fab was separated from intact antibody, F(ab')<sub>2</sub> and Fc fragments by Protein A and Size exclusion chromatography. No intact antibody was observed by SDS-PAGE.

**PERFORMANCE:** Ficoll prepared human peripheral blood lymphocytes were stimulated overnight in culture with 10 ng/ml PMA and 1mM Ionomycin. Five x 10<sup>5</sup> cells per tube were washed and incubated 45 minutes on ice with 80  $\mu$ l of anti-CD137 Fab at 10  $\mu$ g/ml. Cells were washed twice and incubated with 2<sup>o</sup> reagent Goat anti-Mouse IgG/FITC (Catalog #232-011), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 0.66 log<sub>10</sub> fluorescent units when compared to a Mouse IgG1 Fab negative control (Catalog #278-580).

\*Research Use Only. Not for use in Diagnostic procedures.

**Binding of anti-CD137 Fab +GAM/FITC to stimulated human CEM**

