

## Technical Data Sheet

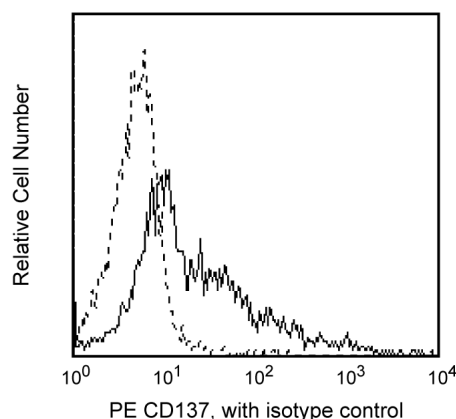
## PE Mouse Anti-Human CD137

## Product Information

<b>Material Number:</b>	<b>561701</b>
<b>Alternate Name:</b>	4-1BB
<b>Size:</b>	25 tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	4B4-1
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	VI C-7
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

Reacts with 4-1BB, a 30 kDa glycoprotein expressed on activated T cells. 4-1BB can be detected on Con A or PHA-stimulated peripheral blood T cells (CD4+ and CD8+) and on CEM cells (human T-cell leukemia) following 2 day PMA and ionomycin stimulation, but not on resting T cells. 4-1BB is reported to be a participant in T-cell activation, being responsible for rescuing T cells from activation-induced apoptosis, upregulation of Th1-type, T-helper cells, downregulation of Th2-type cytokine production, and induction of cell adhesion to fibronectin.



*Profile of Con A-stimulated peripheral blood mononuclear cells (PBMC) analyzed by flow cytometry.*

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).

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4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. An isotype control should be used at the same concentration as the antibody of interest.

## References

- Garni-Wagner BA, Lee ZH, Kim YJ, Wilde C, Kang CY, Kwon BS. 4-1BB is expressed on CD45RAhiROhi transitional T cell in humans. *Cell Immunol.* 1996; 169(1):91-98. (Biology)
- Hurtado JC, Kim SH, Pollok KE, Lee ZH, Kwon BS. Potential role of 4-1BB in T cell activation. Comparison with the costimulatory molecule CD28. *J Immunol.* 1995; 155(7):3360-3367. (Biology)
- Hurtado JC, Kim YJ, Kwon BS. *AAI Meeting, Abstract #841*. San Francisco: 1997. (Biology)
- Kim YJ, Kim SH, Kwon BS. *AAI Meeting, Abstract #838*. San Francisco: 1997. (Biology)
- Zhou Z, Kim S, Hurtado J, et al. Characterization of human homologue of 4-1BB and its ligand. *Immunol Lett.* 1995; 45(1-2):67-73. (Biology)