

# CD137 (4-1BB) Monoclonal Antibody (4B4 (4B4-1)), Super Bright™ 600, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	4B4 (4B4-1)
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2717053

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	1 Publication

## Product Specific Information

Description: This 4B4 (4B4-1) monoclonal antibody reacts with human CD137 (also known as 4-1BB or TNFRSF9), which is an inducible member of the TNFR family of costimulatory molecules expressed on T cells, natural killer cells, dendritic cells, granulocytes, and mast cells. Involved in recruiting TNFR-associated factors (TRAF) 1 and 2, CD137 signaling plays a role in T cell activation, maintaining the survival of activated and CD8 memory T cells, as well as suppressing myelopoiesis and dendritic cell development. Stimulation of this receptor has also been shown to promote expansion of CD4+CD25+ T regulatory cells *in vivo*. The ligand for CD137, 4-1BBL, is found on activated macrophages, mature B cells, hematopoietic stem cells, and myeloid progenitor cells.

Applications Reported: This 4B4 (4B4-1) antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 4B4 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at less than or equal to 5 µL (0.5 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

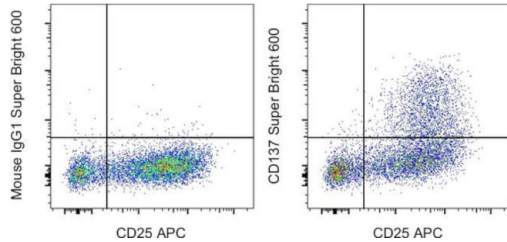
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 600 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD137 (4-1BB) Monoclonal Antibody (4B4 (4B4-1)), Super Bright™ 600, eBioscience™



### CD137 (4-1BB) Antibody (63-1379-42) in Flow

Normal human peripheral blood cells were stimulated for 72 hours with Con A (Product # 00-4978-93) and then stained with CD25 Monoclonal Antibody, PE (Product # 12-0259-42) and Mouse IgG1 kappa Isotype Control, Super Bright 600 (Product # 63-4714-82) (left) or CD137 Monoclonal Antibody, Super Bright 600 (right). Total viable cells were used for analysis.

## 1 Reference

### Flow Cytometry (1)

#### Oncoimmunology

### Neoantigens retention in patient derived xenograft models mediates autologous T cells activation in ovarian cancer.

"Published figure using CD137 (4-1BB) monoclonal antibody (Product # 63-1379-42) in Flow Cytometry"

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