

## iF647 Anti-Human CD137 (4-1BB) Antibody

<b>Catalog Number:</b>	108003, 108004
<b>Size:</b>	25 tests, 100 tests
<b>Target Name:</b>	CD137, 4-1BB, ILA, TNFRSF9
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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<b>Clone:</b>	4B4-1
<b>Application:</b>	Flow Cytometry
<b>Reactivity:</b>	Human
<b>Format:</b>	iF647
<b>Isotype:</b>	Mouse IgG1
<b>Antibody Type:</b>	Monoclonal
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
<b>Protein Concentration:</b>	Supplied at a lot-specific concentration.
<b>Storage&amp;Handling:</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
<b>Recommended Usage:</b>	For flow cytometric staining, it is recommended to use 5 µL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application. iF647 has an excitation max at 656 nm and an emission max at 670 nm.
<b>Excitation Laser:</b>	Red Laser (633 nm)
<b>Isotype Control:</b>	301413

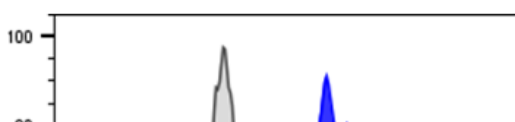
### BACKGROUND INFORMATION

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CD137 is a 39 kDa type I transmembrane protein and a member of the Tumor Necrosis Factor Receptor (TNFR) superfamily. It is expressed on activated T cells, NKT cells, and NK cells, where it functions as a co-stimulatory molecule that promotes T cell proliferation, survival, and monocyte activation through its interaction with 4-1BB ligand. CD137 plays a key role in anti-tumor immunity. Agonistic anti-CD137 antibodies enhance tumor-specific CD8<sup>+</sup> T cell responses, increase NK and dendritic cell function, and improve antibody-dependent cellular cytotoxicity (ADCC) when used with tumor-targeting monoclonal antibodies. Its expression can be upregulated on NK cells after CD16 ligation, although its effect on NK cell cytotoxicity can vary between human and murine systems. Overall, CD137 is an important immunomodulatory target in cancer immunotherapy.

### PRODUCT DATA

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Anti-human CD3 and Anti-Human CD28 stimulated human peripheral blood lymphocytes was stained with iF647 Anti-Human CD137 clone 4B4-1 (color-filled histogram) or an isotype control (gray histogram).

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