



# Rat Anti-Mouse 4-1BB (CD137) Monoclonal antibody, clone 3H3 (CABT-L4304)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The 3H3 monoclonal antibody reacts with mouse 4-1BB, a TNF receptor superfamily member also known as CD137. 4-1BB is a 39 kDa transmembrane protein expressed by T lymphocytes, NK cells, dendritic cells, granulocytes, and mast cells. Upon binding its ligand 4-1BBL, 4-1BB provides costimulatory signals to both CD4 and CD8 T cells through the activation of NF-κB, c-Jun and p38 downstream pathways. The importance of the 4-1BB pathway has been underscored in a number of diseases, including cancer. Agonistic anti-4-1BB antibodies have been reported to induce T cell mediated antitumor immunity. The 3H3 antibody is an agonistic antibody that has been shown to stimulate 4-1BB signaling in vivo.

<b>Target</b>	Mouse 4-1BB (CD137)
<b>Immunogen</b>	Mouse CD137 human Fc fusion protein
<b>Isotype</b>	IgG2a
<b>Source/Host</b>	Rat
<b>Species Reactivity</b>	Mouse
<b>Clone</b>	3H3
<b>Purification</b>	Protein G purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade
<b>Applications</b>	in vivo 4-1BB stimulation, in vitro 4-1BB stimulation
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility

<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]  Endotoxin level: <2EU/mg (<0.002EU/μg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

**Introduction** The protein encoded by this gene is a member of the TNF-receptor superfamily. This receptor contributes to the clonal expansion, survival, and development of T cells. It can also induce proliferation in peripheral monocytes, enhance T cell apoptosis induced by TCR/CD3 triggered activation, and regulate CD28 co-stimulation to promote Th1 cell responses. The expression of this receptor is induced by lymphocyte activation. TRAF adaptor proteins have been shown to bind to this receptor and transduce the signals leading to activation of NF-kappaB.

**Keywords** 4-1BB;CD137

## GENE INFORMATION

**Synonyms** 4-1BB; CD137

**References** Giardino Torchia, M. L., et al. (2015). "c-IAP ubiquitin protein ligase activity is required for 4-1BB signaling and CD8(+) memory T-cell survival." Eur J Immunol 45(9): 2672-2682. PubMed;