

## Product Data Sheet

## Purified anti-human 4-1BB Ligand (CD137L)

Catalog # / Size:	311501 / 25 μg 311502 / 100 μg		
Clone:	5F4		. U.
Isotype:	Mouse IgG1, κ		
Reactivity:	Human	- E	
Preparation:	The antibody was purified by affinity chromatography.	ny r	
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sod	ium azide.	
Concentration:	0.5 mg/ml		
Storage:	The antibody solution should be stored undiluted at 4°C.	<b>&amp;</b>	
Application	IS: FC - Quality tested		10 <sup>0</sup> 10 <sup>1</sup> 10 <sup>2</sup> 10 <sup>3</sup> 10 <sup>4</sup> Log Fluoresence Intensity
Applications:			
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is $\leq 2.0 \ \mu g$ per million cells in 100 $\mu$ l volume. It is recommended that the reagent be titrated for optimal performance for each application. HuT 78 ( <i>T lymphoma cell line</i> ) stained with purified 5F4, then detected with biotinylated anti-mouse <i>IgG followed by Sav-PE</i>		
Application Notes:	For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 311504) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated anti-mouse IgG second step (Cat. No. 405303), followed by SAv-PE (Cat. No. 405204)).		
Application References:	1.Jiang D, <i>et al.</i> 2008. <i>Stem Cells</i> .PubMed 2. Ho WT, <i>et al.</i> 2013. <i>Cancer Res.</i> 73:652. PubMed.		
Description:	4-1BB ligand, also known as CDw137L, is a 97 kD member of the TNF superfamily mainly expressed on APCs, activated B and T cells. It has been reported to be important in T cell proliferation and cytokine production through interaction with 4-1BB receptor. 4-1BB ligand appears to be able to act as a costimulatory molecule without the engagement of other costimulatory molecules such as CD28.		
Antigen References:	<ol> <li>Akiba H, <i>et al.</i> 2000. <i>J. Exp. Med.</i> 191:375.</li> <li>Pollak KE, <i>et al.</i> 1995. <i>Eur. J. Immunol.</i> 25:488.</li> <li>DeBenedette MA, <i>et al.</i> 1997. <i>J. Immunol.</i> 158:551.</li> <li>Goodwin RG, <i>et al.</i> 1993. <i>Eur. J. Immunol.</i> 23:2631.</li> </ol>		
Related Products	<b>: Product</b> Purified Mouse IgG1, κ Isotype Ctrl Biotin Goat anti-mouse IgG (minimal x-reactivity) PE Goat anti-mouse IgG (minimal x-reactivity) Cell Staining Buffer RBC Lysis Buffer (10X) Purified anti-human CD137 (4-1BB)	Clone MOPC-21 Poly4053 Poly4053 4B4-1	Application FC, ICFC, ICC, IF, IHC, IP, WB FC, ELISA, IHC, IF, WB FC FC, ICC, ICFC FC, ICFC FC, IP, ELISA



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