

**Rabbit Anti-CD137/4-1BB/TNFRSF9 [4-1BB/4552R]: RM0028, RM0028RTU7**

**Intended Use:** For Research Use Only

**Description:** CD137 or 4-1BB is an inducible receptor-like protein expressed on the cell surface of activated splenic T cells and thymocytes. It exists as both a monomer and a dimer on the surface of activated T cells. 4-1BB is structurally related to the members of NGFR/TNFR superfamily which are characterized by the presence of three-six patterns of a cysteine-rich motif in their extracellular domains. Other members of this family include low affinity NGFR, two receptors for TNF (TNFR-I and TNFR-II), CD30, CD40, OX40, Fas, and CD27. These molecules are involved in cell growth, survival, and death processes. The cytoplasmic domain of 4-1BB include two runs of acidic amino acids, a potential p56lck binding site, five consecutive glycines at the C-terminus, and four potential phosphorylation sites: one tyrosine, two threonine, and one serine.

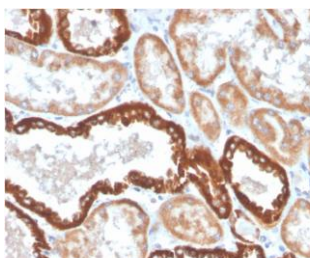
**Specifications:**

Clone: 4-1BB/4552R  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human  
 Immunogen: Recombinant fragment aa 19-188 of human CD137 protein  
 Localization: Membrane  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, Flow Cyt., IF, WB  
 Package:

Description	Catalog No.	Size
CD137/4-1BB/TNFRSF9 Concentrated	RM0028	1 ml
CD137/4-1BB/TNFRSF9 Prediluted	RM0028RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Kidney cancer, liver, stomach and thyroid cancer  
 Concentrated Dilution: 25-100  
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE kidney stained with anti-CD137 using DAB

**References:**

1. Impact of CD137-CD137L signaling mediated exocytosis of autophagosome within vascular smooth muscle cells on the formation of atherosclerotic calcification. Li B, et al. Zhonghua Xin Xue Guan Bing Za Zhi. 2017.
2. Activation of CD137 signaling accelerates vascular calcification in vivo and vitro. Chen Y, et al. Int J Cardiol. 2017.
3. CD137-CD137L signaling promotes angiogenesis in atherosclerosis plaque of mice through activating nuclear factor of activated T cells c1. Weng JY, et al. Zhonghua Xin Xue Guan Bing Za Zhi. 2016.

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