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#90204**4-1BBL/CD137L/TNFSF9 (E8W3P) Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IP, IHC-Bond, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 28	Source/Isotype: Rabbit IgG	UniProt ID: #P41273	Entrez-Gene Id: 8744
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Product Usage Information**Application**

Immunoprecipitation
IHC Leica Bond
Immunohistochemistry (Paraffin)

Dilution

1:100
1:300 - 1:1200
1:50 - 1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #26596.

Specificity/Sensitivity

4-1BBL/CD137L/TNFSF9 (E8W3P) Rabbit mAb recognizes endogenous levels of total 4-1BBL/CD137L/TNFSF9 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human 4-1BBL/CD137L/TNFSF9 protein.

Background

TNFRSF9 is a member of the tumor necrosis factor receptor superfamily (1,2). It is also called 4-1BB or CD137 (1, 2). 4-1BB/CD137/TNFRSF9 is expressed in activated CD4+ and CD8+ T cells, natural killer cells and dendritic cells (2-5). The ligand 4-1BBL/CD137L/TNFSF9 on antigen presenting cells binds to 4-1BB/CD137/TNFRSF9 and costimulates the activation of T cells (5). The binding of agonistic antibodies to 4-1BB/CD137/TNFRSF9 also leads to costimulation for T cell activation (5). Studies have shown the effectiveness of targeting 4-1BB/CD137/TNFRSF9 by its agonistic antibodies in cancer immunotherapy (6).

Background References

1. Sun, Y. et al. (2002) *Nat Med* 8, 1405-13.
2. Wilcox, R.A. et al. (2002) *J Clin Invest* 109, 651-9.
3. Lin, W. et al. (2008) *Blood* 112, 699-707.
4. Wilcox, R.A. et al. (2002) *J Immunol* 168, 4262-7.
5. Melero, I. et al. (1997) *Nat Med* 3, 682-5.
6. Yonezawa, A. et al. (2015) *Clin Cancer Res* 21, 3113-20.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IP: Immunoprecipitation **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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