

#14572 Store at -20C

B7-H4 (D1M8I) XP® Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IHC-Bond, IHC-P	H	Endogenous	75	Rabbit IgG	#Q7Z7D3	79679

Product Usage Information**Application**

Western Blotting
IHC Leica Bond
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:200
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 #17188.

Specificity / Sensitivity

B7-H4 (D1M8I) XP® Rabbit mAb recognizes endogenous levels of total B7-H4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala141 of human B7-H4 protein.

Background

B7 homolog 4 (B7-H4, VTCN1) is a member of the B7 family of cell surface ligands that regulate T cell activation and immune responses (1-3). B7-H4 protein contains two extracellular Ig-like V-type domains, a transmembrane domain, and a short, two amino acid intracellular domain (3). The B7-H4 protein is shown to inhibit T cell activation, proliferation, and cytokine production (1,4,5). Although B7-H4 mRNA is widely expressed, B7-H4 protein is restricted to antigen presenting cells and B cells (1). The B7-H4 protein is also found in several tumor types, including ovarian cancer and breast cancer (6). Research studies indicate that B7-H4 protein is present on the surface of ovarian tumor cells, and that targeted inhibition of B7-H4 using recombinant antibodies restores T cell activation pathways. These studies suggest some potential therapeutic value in blocking B7-H4 function and restoring T cell function in cancer patients (7,8).

Background References

1. Sica, G.L. et al. (2003) *Immunity* 18, 849-61.
2. Prasad, D.V. et al. (2003) *Immunity* 18, 863-73.
3. Zang, X. et al. (2003) *Proc Natl Acad Sci U S A* 100, 10388-92.
4. He, C. et al. (2011) *Clin Dev Immunol* 2011, 695834.
5. Yi, K.H. and Chen, L. (2009) *Immunol Rev* 229, 145-51.
6. Salceda, S. et al. (2005) *Exp Cell Res* 306, 128-41.
7. Dangaj, D. and Scholler, N. (2013) *Oncoimmunology* 2, e25913.
8. Dangaj, D. et al. (2013) *Cancer Res* 73, 4820-9.

Species Reactivity

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

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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