

**B7-H3 (D9M2L) XP<sup>®</sup> Rabbit mAb**

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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:
W, W-S, IHC-Bond, IHC-P	H	Endogenous	90	Rabbit IgG	#Q5ZPR3	80381

### Product Usage Information

#### Application

Western Blotting  
Simple Western™  
IHC Leica Bond  
Immunohistochemistry (Paraffin)

#### Dilution

1:1000  
1:10 - 1:50  
1:50 - 1:200  
1:100 - 1:400

### 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 #58798.

### Specificity/Sensitivity

B7-H3 (D9M2L) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total B7-H3 protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala94 of human B7-H3 protein.

### Background

B7 homolog 3 (B7-H3, CD276) is a member of the B7 family of cell surface ligands that regulate T cell activation and immune responses. B7-H3 protein contains two extracellular Ig-like V-type domains and two IgG-like C2-type domains, a transmembrane domain, and a short intracellular domain (1,2). Early research examining the biological process of B7-H3 suggested that B7-H3 is a positive regulator of T cell response (1). Subsequent research studies indicated that B7-H3 is a negative regulator of T cell response, and that the protein inhibits T cell proliferation (2,3). One possibility is that B7-H3 interacts with two distinct sets of receptors, resulting in seemingly opposite biological outcomes (2). B7-H3 is expressed by antigen presenting cells, activated T cells, and a few normal tissues, including placenta and prostate (1,4,5). Expression of B7-H3 is seen in several cancer types, including prostate, breast, colon, lung, and gastric cancers, and in endothelial cells from tumor associated vasculature (6-8).

### Background References

1. Chapoval, A.I. et al. (2001) *Nat Immunol* 2, 269-74.
2. Leitner, J. et al. (2009) *Eur J Immunol* 39, 1754-64.
3. Ling, V. et al. (2003) *Genomics* 82, 365-77.
4. Petroff, M.G. et al. (2005) *Am J Pathol* 167, 465-73.
5. Roth, T.J. et al. (2007) *Cancer Res* 67, 7893-900.
6. Loo, D. et al. (2012) *Clin Cancer Res* 18, 3834-45.
7. Seaman, S. et al. (2007) *Cancer Cell* 11, 539-54.
8. Zang, X. et al. (2010) *Mod Pathol* 23, 1104-12.

### 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

**W:** Western Blotting **W-S:** Simple Western™ **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

### Cross-Reactivity Key

**H:** Human

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