Revision 3

#8518 Store at -20C

Palladin (D9H2) Rabbit mAb

Cell Signaling TECHNOLOGY®

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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, IHC-P	H M R	Endogenous	140, 90	Rabbit IgG	#Q8WX93	23022

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	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.

Specificity/Sensitivity

Palladin (D9H2) Rabbit mAb recognizes endogenous levels of total palladin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1043 of human palladin protein.

Background

The actin-associated scaffold protein, palladin, is associated with multiple actin-rich structures, and plays a role in cellular migration and invasion (1). Palladin regulates the formation of invasive structures called podosomes and invadopodia (1-3). Alternative splicing results in at least three palladin isoforms, including the widely expressed 140 kDa and 90 kDa isoforms (2). Palladin has been shown to promote invasion in basal-like breast carcinoma models (4). Palladin is also upregulated in injured kidneys, and promotes migration of kidney cells to facilitate repair (5). In differentiating muscle cells, palladin regulates migration and myogenesis (6). Several research studies have focused on palladin expression and function in cancer-associated fibroblasts (CAFs). Researchers have shown that expression of palladin in stromal fibroblasts of pancreatic ductal adenocarcinoma is an indication of the effectiveness of chemotherapy (7). The cancer associated transcription factor Twist1 may require palladin and collagen alpha1 for its metastatic effect in fibroblasts (8).

Background References

1. Goicoechea, S.M. et al. (2008) *Eur J Cell Biol* 87, 517-25.
2. Najm, P. and El-Sibai, M. (2014) *Cell Adh Migr* 8, 29-35.
3. Goicoechea, S.M. et al. (2014) *Oncogene* 33, 1265-73.
4. von Nandelstadh, P. et al. (2014) *Mol Biol Cell* 25, 2556-70.
5. Chang, E.H. et al. (2015) *Sci Rep* 5, 7695.
6. Nguyen, N.U. and Wang, H.V. (2015) *PLoS One* 10, e0124762.
7. Sato, D. et al. (2016) *PLoS One* 11, e0152523.
8. García-Palmero, I. et al. (2016) *Oncogene* , .

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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Limited Uses

force or effect.

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