

#13589 Store at -20°C

## Phospho-Talin (Ser425) (D2P2M) Rabbit mAb



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	270	Rabbit IgG	#Q9Y490	7094

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation

#### Dilution

1:1000  
1:50

### 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

Phospho-Talin (Ser425) (D2P2M) Rabbit mAb recognizes endogenous levels of talin protein only when phosphorylated at Ser425. Based on sequence homology, this antibody is expected to recognize both talin-1 and talin-2 proteins phosphorylated at Ser425.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser425 of human talin protein.

### Background

Focal adhesions connect the cytoskeleton with the extracellular matrix (ECM), a complex structure of secreted macromolecules that surrounds mammalian organs and tissues. Integrins clustered on the extracellular side of focal adhesions signal from the ECM to intracellular protein complexes, which in turn signal to the actin cytoskeleton to regulate the tension needed for cell motility. Internal signals also converge on focal adhesions to regulate integrin affinity and avidity. Signaling through focal adhesions regulates cell adhesion, migration, proliferation, apoptosis, and gene expression, and impacts cellular processes such as development, wound healing, immune response, invasion, metastasis, and angiogenesis (reviewed in 1-3). Talin is a large, multidomain focal adhesion protein that interacts with the intracellular domains of integrins and other focal adhesion proteins. Talin is involved in the formation of focal adhesions and in linking focal adhesions to the actin cytoskeleton (4). The interaction between talin and integrins increases the affinity between integrin and both insoluble and soluble ECM proteins (5,6).

### Background References

- Burridge, K. et al. (1988) *Annu Rev Cell Biol* 4, 487-525.
- Calderwood, D.A. et al. (2000) *J Biol Chem* 275, 22607-10.
- French-Constant, C. and Colognato, H. (2004) *Trends Cell Biol* 14, 678-86.
- Nayal, A. et al. (2004) *Curr Opin Cell Biol* 16, 94-8.
- Tanentzapf, G. and Brown, N.H. (2006) *Nat Cell Biol* 8, 601-6.
- Tadokoro, S. et al. (2003) *Science* 302, 103-6.

### 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 **IP:** Immunoprecipitation

### 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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