

TRIM5α (D6Z8L) 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: W, IP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 56	Source/Isotype: Rabbit IgG	UniProt ID: #Q9C035	Entrez-Gene Id: 85363
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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

TRIM5α (D6Z8L) Rabbit mAb recognizes endogenous levels of total TRIM5α protein. This antibody does not react with human TRIM5β and is not predicted to react with other human TRIM5 isoforms based on the location of the antigen.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro395 of human TRIM5α protein.

Background

TRIM5α is a retroviral restriction factor that was originally identified as an HIV restriction factor in Old World monkeys (1). The restriction specificity of TRIM5α varies between species (2). Human TRIM5α only weakly restricts HIV, but efficiently restricts N-tropic murine leukemia virus (N-MLV) (1-3). TRIM5α is composed of a tripartite motif containing RING, B-box 2, and coiled-coil domains, and a B30.2/SPRY domain (4). A 13 amino acid stretch of the B30.2/SPRY domain containing multiple positively charged residues was found to be essential for viral restriction and responsible for variations across species in restriction specificity (4,5). TRIM5α blocks viral infection by interacting with the incoming viral capsid and promoting its premature disassembly (1,6,7). In addition, TRIM5α, together with UBC13-UEV1A, promotes innate immune signaling by catalyzing the synthesis of K63-linked ubiquitin chains that activate TAK1, AP-1, and NF-κB (8).

Background References

1. Stremlau, M. et al. (2004) *Nature* 427, 848-53.
2. Hatzioannou, T. et al. (2004) *Proc Natl Acad Sci U S A* 101, 10774-9.
3. Yap, M.W. et al. (2004) *Proc Natl Acad Sci U S A* 101, 10786-91.
4. Javanbakht, H. et al. (2005) *J Biol Chem* 280, 26933-40.
5. Sawyer, S.L. et al. (2005) *Proc Natl Acad Sci U S A* 102, 2832-7.
6. Stremlau, M. et al. (2006) *Proc Natl Acad Sci U S A* 103, 5514-9.
7. Chatterji, U. et al. (2006) *J Biol Chem* 281, 37025-33.
8. Pertel, T. et al. (2011) *Nature* 472, 361-5.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **Mk:** Monkey

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