

#3984 Store at -20°C

Keratin 17/19 (D32D9) XP™ Rabbit mAb



100 µl
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

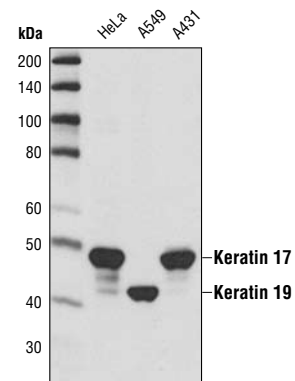
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P Endogenous	H, M, R, Mk	48 kDa/ 41 kDa	Rabbit IgG**

Background: Keratins (cytokeratins) are intermediate filament proteins that are mainly expressed in epithelial cells. Keratins assemble into filaments, forming heterodimers of an acidic keratin (or type I keratin, keratins 9 to 23) and a basic keratin (or type II keratin, keratins 1 to 8) (1,2). Keratin isoforms demonstrate tissue- and differentiation-specific profiles that make them useful as biomarkers (1). Mutations in keratin genes are associated with skin disorders, liver and pancreatic diseases, and inflammatory intestinal diseases (3-6).

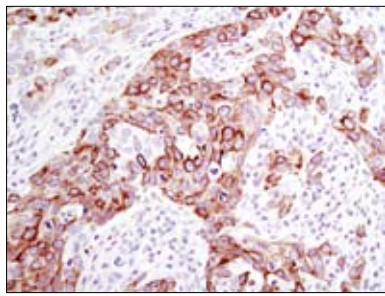
Keratin 17 is involved in wound healing and cell growth, two processes that require rapid cytoskeletal remodeling (7). Keratinocytes deficient in keratin 17 exhibit abnormal Akt/mTOR signaling and fail to produce an increase in translation, cell size, or growth; these cells also exhibit abnormal 14-3-3σ localization. As 14-3-3σ typically associates with keratin 17, these results imply that Akt/mTOR signaling results in sequestration of 14-3-3σ with keratin 17 in the cytosol, which is required for translation and cell growth. Phosphorylation of keratin 17 on Ser44 may provide a docking site for 14-3-3σ binding (8).

Specificity/Sensitivity: Keratin 17/19 (D32D9) XP™ Rabbit mAb detects endogenous levels of keratin 17 and keratin 19 proteins.

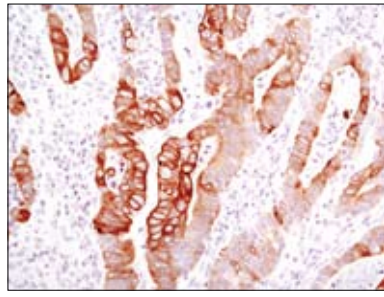
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to amino acids near the amino terminus of human keratin 17 and human keratin 19.



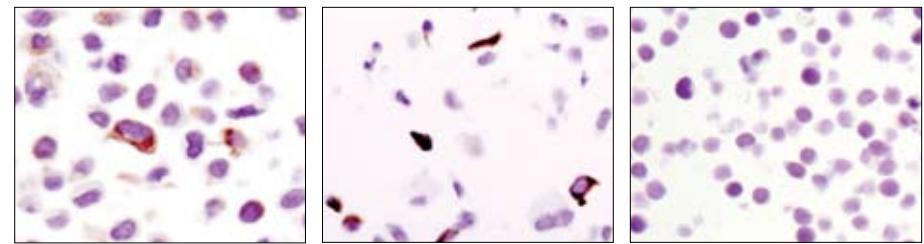
Western blot analysis of extracts of HeLa, A549 and A431 cells using Keratin 17/19 (D32D9) XP™ Rabbit mAb. As expected, keratin 17 is detected in HeLa and A431 cells while keratin 19 is found in A549 cells.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Keratin 17/19 (D32D9) XP™ Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using Keratin 17/19 (D32D9) XP™ Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded HeLa cells (keratin 17 positive) (left), A549 cells (keratin 19 positive) (middle), and Jurkat cells (keratin 17/19 negative) (right) using Keratin 17/19 (D32D9) XP™ Rabbit mAb.

Entrez-Gene ID #3872
Swiss-Prot Acc. #Q04695

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.

***Species cross-reactivity is determined by western blot.**
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:300
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112

For application specific protocols please see the web page for this product at www.cellsignal.com.
Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Background References:

- (1) Moll, R. et al. (1982) *Cell* 31, 11-24.
- (2) Chang, L. and Goldman, R.D. (2004) *Nat. Rev. Mol. Cell Biol.* 5, 601-613.
- (3) Ramaekers, F.C. and Bosman, F.T. (2004) *J. Pathol.* 204, 351-354.
- (4) Lane, E.B. and McLean, W.H. (2004) *J. Pathol.* 204, 355-366.
- (5) Zatloukal, K. et al. (2004) *J. Pathol.* 204, 367-376.
- (6) Owens, D.W. and Lane, E.B. (2004) *J. Pathol.* 204, 377-385.
- (7) Paladini, R.D. et al. (1996) *J. Cell Biol.* 132, 381-397.
- (8) Kim, S. et al. (2006) *Nature* 441, 362-365.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.