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-20°C

DEK (E4S5J) Rabbit mAb

#29812

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UniProt ID #P35659

New 01/19

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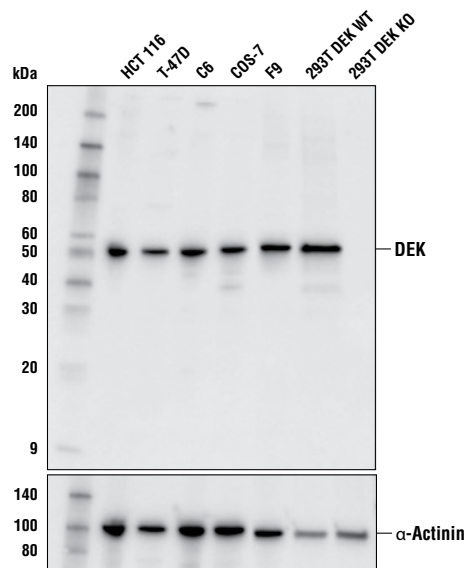
Applications W, IHC-P Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 50 kDa	Isotype Rabbit IgG**
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Background: The protein product of the DEK oncogene is a nuclear phosphoprotein that is highly conserved among higher eukaryotic organisms and preferentially expressed in actively proliferating and/or malignant cells (1,2). DEK is an abundant, non-histone chromosomal protein that establishes and maintains heterochromatin by interacting with HP1a, enhancing HP1a binding to tri-methyl histone H3 Lys9 and stabilizing local tri-methyl histone H3 Lys9 levels (3). DEK localized to euchromatin represses transcription by interacting with transcription factors such as RelA/p65 (4). The DEK protein also associates with mRNA processing factors to regulate splicing and nuclear export (5,6).

The DEK proto-oncogene functions as a negative regulator of cellular differentiation, senescence, and apoptosis. DEK is translocated and/or over-expressed in a number of different cancers, including acute myeloid leukemia, breast cancer, cervical cancer, hepatocellular carcinoma, melanoma, and small cell lung cancer (1,2). In addition to the role of DEK in cancer biology, which is mainly related to its intracellular functions, extracellular DEK is implicated in the pathogenesis of autoimmune disorders (1,2). Circulating autoantibodies to DEK have been identified in the serum of patients with autoimmune diseases, including juvenile idiopathic arthritis, sarcoidosis, and systemic lupus erythematosus. DEK is secreted by human monocyte-derived macrophages and apoptotic T-lymphocytes and can act as a chemotactic, pro-inflammatory factor (7,8). Exogenous DEK can penetrate neighboring cells, and translocate to the nucleus to carry out its endogenous nuclear functions (9). IL-8 induced secretion of DEK from macrophages serves as a chemoattractant for peripheral blood leukocytes (7).

Specificity/Sensitivity: DEK (E4S5J) Rabbit mAb recognizes endogenous levels of total DEK protein. Non-specific staining has been observed by IHC in nerve cells.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human DEK protein.



Western blot analysis of extracts from various cell lines using DEK (E4S5J) Rabbit mAb (upper) and α -Actinin (D6F6) XP[®] Rabbit mAb #6487 (lower). As expected, DEK is not expressed when knocked out in 293T cells (293T DEK KO).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/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)	1:150-1:600
<i>Optimal IHC dilutions determined using SignalStain[®] Boost IHC Detection Reagent.</i>	
Unmasking buffer: SignalStain [®] Citrate Unmasking Solution (10X) #14746	
Antibody diluent: SignalStain [®] Antibody Diluent #8112	
Detection reagent: SignalStain [®] Boost (HRP, Rabbit) #8114	

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Broxmeyer, H.E. et al. (2013) *Stem Cells* 31, 1447-53.
- (2) Riveiro-Falkenbach, E. and Soengas, M.S. (2010) *Clin Cancer Res* 16, 2932-8.
- (3) Kappes, F. et al. (2011) *Genes Dev* 25, 673-8.
- (4) Sammons, M. et al. (2006) *J Biol Chem* 281, 26802-12.
- (5) McGarvey, T. et al. (2000) *J Cell Biol* 150, 309-20.
- (6) Soares, L.M. et al. (2006) *Science* 312, 1961-5.
- (7) Mor-Vaknin, N. et al. (2006) *Mol Cell Biol* 26, 9484-96.
- (8) Kappes, F. et al. (2008) *Mol Cell Biol* 28, 3245-57.
- (9) Saha, A.K. et al. (2013) *Proc Natl Acad Sci U S A* 110, 6847-52.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

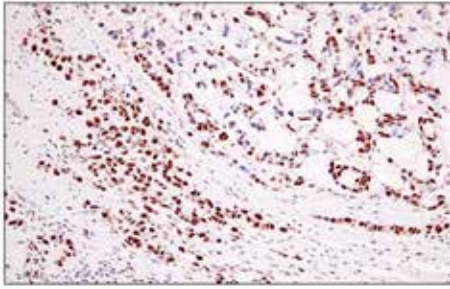
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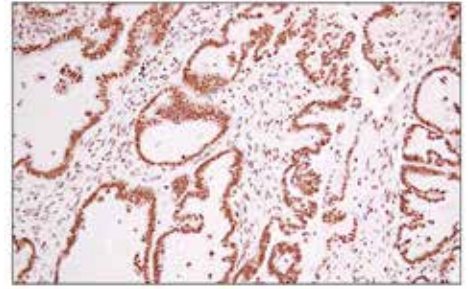
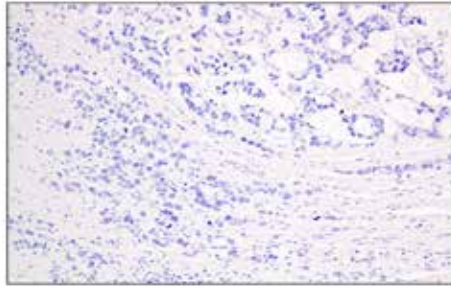
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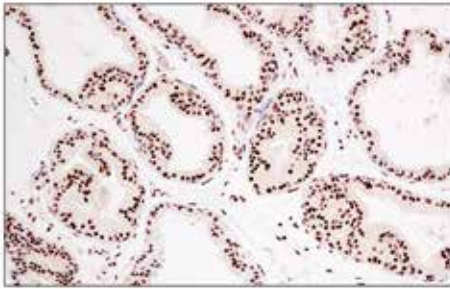
Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine 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.



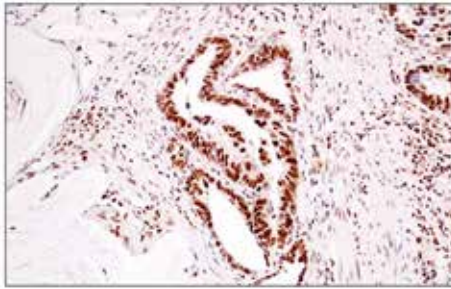
Immunohistochemical analysis of paraffin-embedded human colon carcinoma using DEK (E4S5J) Rabbit mAb (left) compared to concentration matched Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (right).



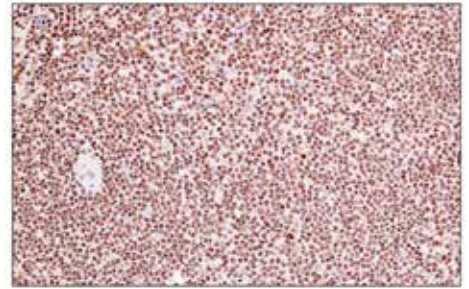
Immunohistochemical analysis of paraffin-embedded human ovarian serous carcinoma using DEK (E4S5J) Rabbit mAb.



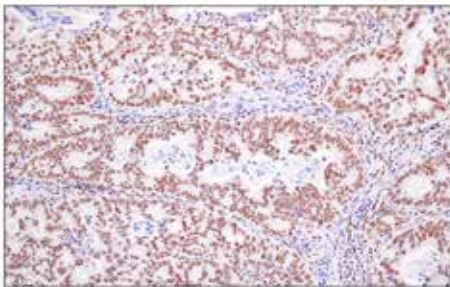
Immunohistochemical analysis of paraffin-embedded mouse prostate using DEK (E4S5J) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human gastric adenocarcinoma using DEK (E4S5J) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human non-Hodgkin's lymphoma using DEK (E4S5J) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using DEK (E4S5J) Rabbit mAb.

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