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#78568

ATAD2 (E8Y2K) Rabbit mAb

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orders@cellsignal.comEntrez-Gene ID #29028
UniProt ID #Q6PL18

New 08/19

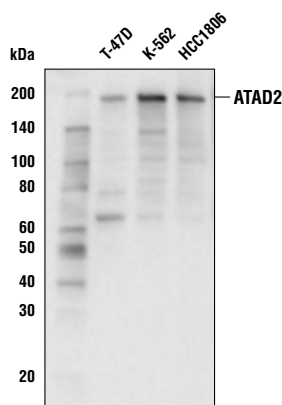
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Applications W, IHC-P Endogenous	Species Cross-Reactivity* H	Molecular Wt. 180 kDa	Isotype Rabbit IgG**
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Background: ATPase family AAA domain containing protein 2 (ATAD2) is an oncogenic protein that was originally identified as a coactivator for estrogen receptor (ESR1), and later identified as a coactivator for other transcription factors including c-Myc and E2F1, E2F2, and E2F3 proteins (1-4). ATAD2 is highly expressed and associated with poor prognosis in many types of cancer, including breast, uterine, colon, ovarian, stomach, non-small cell lung carcinoma, osteosarcoma, and cervical cancer (1,5-14). In cancer cells, overexpressed ATAD2 interacts with transcription factors and chromatin modifier proteins to induce the expression of genes that promote cell proliferation and inhibit apoptosis, ultimately promoting tumor growth (15,16). Indeed, knockdown of ATAD2 in pancreatic cancer cell lines has been shown to promote apoptosis, limit cell migration and invasion, and inhibit anchorage-independent growth (17). ATAD2 is a member of the ATPases associated with various cellular activities (AAA) family of proteins and contains a functional AAA domain in its central region, as well as a bromodomain near the C-terminus. The bromodomain binds to acetylated lysine residues on histone proteins, targeting ATAD2 protein to areas of active transcription, where it modulates chromatin structure and recruits additional transcription factors (18,19). Current efforts are underway to better characterize and develop inhibitors to the ATAD2 bromodomain for the treatment of various cancers (16,20-23).

Specificity/Sensitivity: ATAD2 (E8Y2K) Rabbit mAb recognizes endogenous levels of total ATAD2 protein. Note: Non-specific non-nuclear staining was observed in brain in immunohistochemistry testing.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu910 of human ATAD2 protein.



Western blot analysis of extracts from T-47D, K-562, and HCC1806 cells using ATAD2 (E8Y2K) Rabbit mAb.

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) 1:200-1:800

Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

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:

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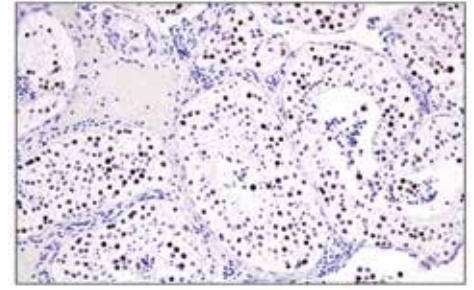
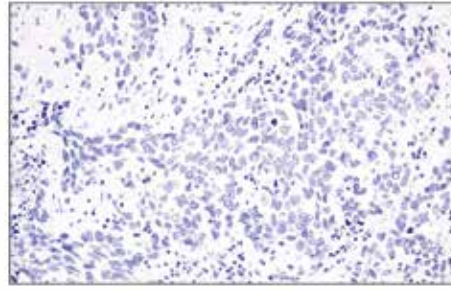
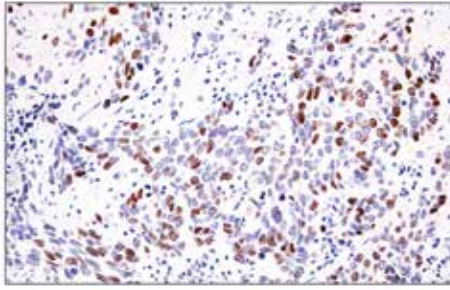
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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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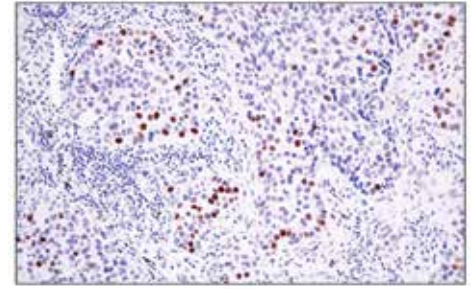
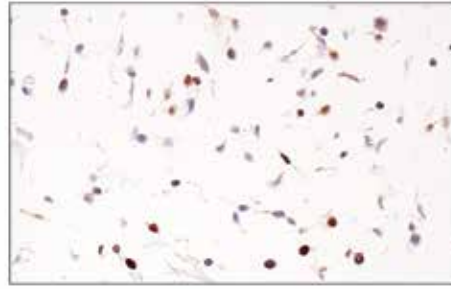
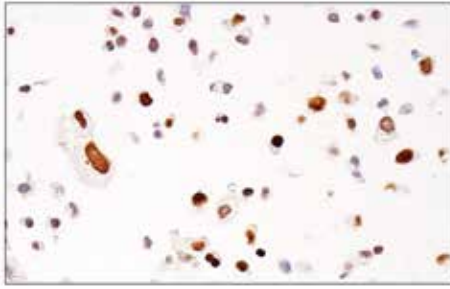
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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken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



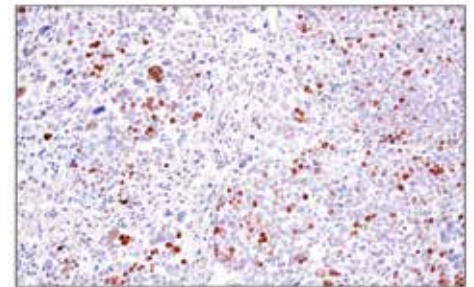
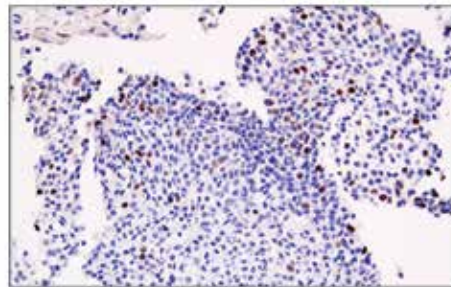
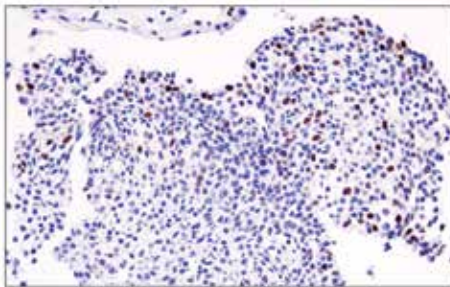
Immunohistochemical analysis of paraffin-embedded human squamous cell lung carcinoma using ATAD2 (E8Y2K) Rabbit mAb (left) compared to concentration-matched Rabbit (DA1E) mAb IgG XP[®] Isotype Control #3900 (right).

Immunohistochemical analysis of paraffin-embedded human testis using ATAD2 (E8Y2K) Rabbit mAb.



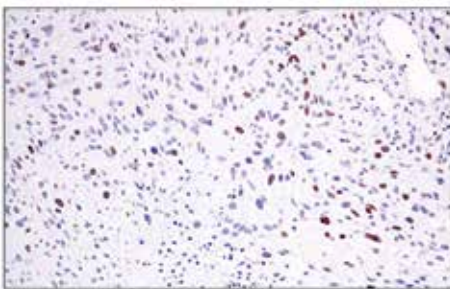
Immunohistochemical analysis of paraffin-embedded T-47D cell pellet (left, high-expressing) or MCF 10A cell pellet (right, low-expressing) using ATAD2 (E8Y2K) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma using ATAD2 (E8Y2K) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma using ATAD2 (E8Y2K) Rabbit mAb (left) or ATAD2 Rabbit mAb (right). These two antibodies detect independent, unique epitopes on human ATAD2. The similar staining patterns obtained with both antibodies help to confirm the specificity of the staining.

Immunohistochemical analysis of paraffin-embedded human ovarian serous carcinoma using ATAD2 (E8Y2K) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human gastrointestinal stromal tumor using ATAD2 (E8Y2K) Rabbit mAb.

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