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#62079

ATAD2 (E8Z7D) Rabbit mAb

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Entrez-Gene ID #29028
UniProt ID #Q6PL18

New 08/19

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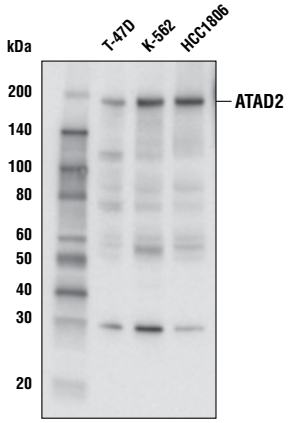
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP	H	180 kDa	Rabbit IgG**
Endogenous			

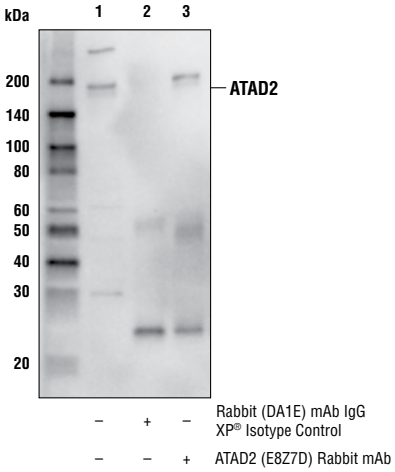
Background: ATPase family AAA domain containing protein 2 (ATAD2) is an oncogenic protein that was originally identified as a coactivator for estrogen receptor (ESR1), and later identified as a coactivator for other transcription factors including c-Myc and E2F1, E2F2, and E2F3 proteins (1-4). ATAD2 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 (E8Z7D) Rabbit mAb recognizes endogenous levels of total ATAD2 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro308 of human ATAD2 protein.



Western blot analysis of extracts from T-47D, K-562, and HCC1806 cells using ATAD2 (E8Z7D) Rabbit mAb.



Immunoprecipitation of ATAD2 from T-47D cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP® Isotype Control #3900, and lane 3 is ATAD2 (E8Z7D) Rabbit mAb. Western blot analysis was performed using ATAD2 (E8Z7D) Rabbit mAb and Mouse Anti-rabbit IgG (Conformation Specific) (L27A9) mAb (HRP Conjugate) #5127.

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
Immunoprecipitation	1:50

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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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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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.