

Active Recombinant Human ATAD2, His&Flag-tagged

Cat. No. ATAD2-31H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ATAD2 corresponding to amino acids 981 - 1108 that contains the bromodomain sequences of ATAD2 (accession number NP_054828.2) was expressed in E. coli and contains an N-terminal His tag and C-terminal FLAG tag.
Species	Human
Source	E.coli
ProteinLength	981-1108 a.a.
Description	ATPase family AAA domain-containing 2 (ATAD2) protein belongs to the AAA protein family which includes a diverse set of proteins with the capacity to couple ATPase-derived chemical energy to mechanical energy resulting in remodeling or translocation of the targeted macromolecular substrate. These proteins are involved in a number of cellular processes ranging from protein degradation and DNA replication to membrane fusion and the movement of microtubule motors. ATAD2 is thought to act as a transcriptional coactivator of the nuclear receptor ESR1 that is required to induce the expression of a subset of estradiol target genes, such as CCND1, MYC and E2F1. Furthermore, ATAD2 may also play a role in the recruitment or occupancy of CREBBP at some ESR1 target gene promoters. In addition, there is evidence that ATAD2 may be required for histone hyperacetylation. Human ATAD2 consists of two AAA+ domains and a bromodomain. Bromodomains recognize acetylated histone lysine residues and function as "readers" of these epigenetic histone marks to regulate chromatin structure and gene expression by linking

 Tel: 1-631-559-9269 1-516-512-3133

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associated proteins to the recognized acetylated nucleosomal targets. The ATAD2 bromodomain specifically interacts with H4K5ac and may contribute to cancer cell proliferation since it has been associated with poor prognosis in breast and testicular cancer.

Form	25 mM HEPES pH 7.5, 150 mM NaCl and 5% glycerol.
Bio-activity	Binding specificity for acetylated H3K14.
Molecular Mass	21.317 kDa
Applications	Binding assays, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Concentration	0.75 mg/ml

GENE INFORMATION

Gene Name	ATAD2 ATPase family, AAA domain containing 2 [Homo sapiens]
Official Symbol	ATAD2
Synonyms	ATAD2; ATPase family, AAA domain containing 2; ATPase family AAA domain-containing protein 2; DKFZp667N1320; MGC5254; MGC29843; PRO2000; AAA nuclear coregulator cancer-associated protein; ANCCA; MGC131938; MGC142216;
Gene ID	29028

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mRNA Refseq	NM_014109
Protein Refseq	NP_054828
MIM	611941
UniProt ID	Q6PL18
Chromosome Location	8q24.13
Function	ATP binding; ATPase activity; hydrolase activity; nucleotide binding;

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