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ZBED1 Antibody

Catalog # ASC10879

Product Information

Application	WB, E
Primary Accession	O96006
Other Accession	AAH15030, 15929151
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	78156
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZBED1 antibody can be used for detection of ZBED1 by Western blot at 1 g/mL.

Additional Information

Gene ID	9189
Other Names	Zinc finger BED domain-containing protein 1, Putative Ac-like transposable element, dREF homolog, ZBED1, ALTE, DREF, KIAA0785, TRAMP
Target/Specificity	ZBED1; This antibody is predicted to have no cross-reactivity to ZBED2 or ZBED3.
Reconstitution & Storage	ZBED1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ZBED1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ZBED1
Function	Functions as an E3-type small ubiquitin-like modifier (SUMO) ligase which sumoylates CHD3/Mi2-alpha, causing its release from DNA (PubMed:27068747). This results in suppression of CHD3/Mi2-alpha transcription repression, increased recruitment of RNA polymerase II to gene promoters and positive regulation of transcription including H1-5 and ribosomal proteins such as: RPS6, RPL10A, and RPL12 (PubMed:12663651, PubMed:17209048, PubMed:17220279, PubMed:27068747). The resulting increased transcriptional activity drives cell proliferation (PubMed:12663651, PubMed:17220279). Binds to 5'- TGTCG[CT]GA[CT]A-3' consensus sequences in

	gene promoters of ribosomal proteins (PubMed:12663651, PubMed:17209048, PubMed:17220279, PubMed:27068747).
Cellular Location	Nucleus, PML body. Nucleus. Note=In granular structures
Tissue Location	Ubiquitously expressed at low levels (PubMed:9887332). Expression is highest in skeletal muscle, heart, spleen and placenta (PubMed:9887332).

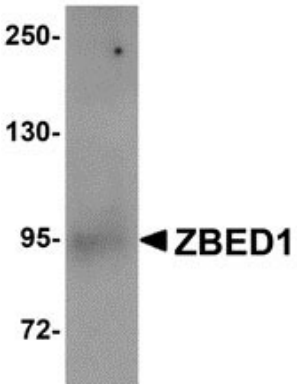
Background

ZBED1 Antibody: ZBED1, also known as DREF, is the human homolog of the Drosophila protein DREF, a transcriptional regulatory factor required for expression of genes involved in DNA replication and cell proliferation. RNA interference (RNAi) experiments targeting ZBED1 RNA resulted in the inhibition of S phase entry and reduction of histone H1 mRNA in HeLa cells, suggesting that ZBED1 also plays a role in cell proliferation in human cells. At least 22 ribosomal proteins (RPs) possess ZBED1 binding sites in their promoters; anti-ZBED1 RNAi also resulted in decreased RP gene expression. Immunoprecipitation analyses have shown that ZBED1 self-associates in vivo via a carboxyl-terminal hATC domain, and this self-association is required for nuclear localization and DNA binding.

References

Ohshima N, Takahashi M, and Hirose F. Identification of a human homolog of the DREF transcription factor with a potential role in regulation of the histone H1 gene. J. Biol. Chem.2003; 278:22928-38.
Yamashita D, Sano Y, Adachi Y, et al. hDREF regulates cell proliferation and expression of ribosomal protein genes. Mol. Cell. Biol.2007; 27:2003-13.
Yamashita D, Komori H, Higuchi Y, et al. Human DNA replication-related element binding factor (hDREF) self-association via hATC domain is necessary for its nuclear accumulation and DNA binding. J. Biol. Chem.2007; 282:7563-75.

Images



Western blot analysis of ZBED1 in A549 cell lysate with ZBED1 antibody at 1 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.