

ZBTB8OS/ARCH Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP57102

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q8IWT0
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	19491

Additional Information

Gene ID	339487
Other Names	Protein archease, Protein ZBTB8OS, Zinc finger and BTB domain-containing opposite strand protein 8, ZBTB8OS, ARCH
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ZBTB8OS (HGNC:24094)
Synonyms	ARCH
Function	Activation factor of RTCB, the catalytic subunit of the tRNA- splicing ligase complex (tRNA-LC), which is involved in the enzyme- dependent maturation of intron-containing pre-tRNAs. Functions downstream of the tRNA-splicing endonuclease that removes introns, ligating the two generated halves via phosphodiester bond formation. Catalyzes the GTP-dependent activation of RTCB, both proteins forming a composite active site coordinating GTP and metal ions to enable the guanylation of RTCB a prerequisite to undergo multiple catalytic cycles (PubMed: 24870230 , PubMed: 38493148). Also required for the activation of RTCB in non-canonical, spliceosome-independent, cytoplasmic splicing of XBP1 mRNAs during the unfolded protein response (UPR). Upon endoplasmic reticulum (ER) stress, the endoribonuclease IRE1/ERN1 excises a short intron, generating free exon ends that are aligned by RNA-intrinsic, zipper-like stem-loop structures. These exon ends are then recognized and ligated by RTCB. This splicing event yields the active XBP1s transcription factor, which induces genes required to resolve

protein folding defects in the endoplasmic reticulum (PubMed:[25378478](#), PubMed:[26483401](#), PubMed:[38493148](#)).

Cellular Location

Cytoplasm. Nucleus Note=Enriched in the cytoplasm.

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