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DANRE atf4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # Azb10008a

Product Information

Application	WB, E
Primary Accession	Q6NW59
Reactivity	Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	36605
Antigen Region	288-314

Additional Information

Gene ID	406514
Other Names	Cyclic AMP-dependent transcription factor ATF-4, cAMP-dependent transcription factor ATF-4, Activating transcription factor 4, atf4 {ECO:0000312|ZFIN:ZDB-GENE-040426-2340}, atf4b1
Target/Specificity	This DANRE atf4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 288-314 amino acids from the C-terminal region of DANRE atf4.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DANRE atf4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	atf4
Synonyms	atf4a {ECO:0000312|ZFIN:ZDB-GENE-040426-
Function	Transcription factor that binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3') and displays two biological functions, as

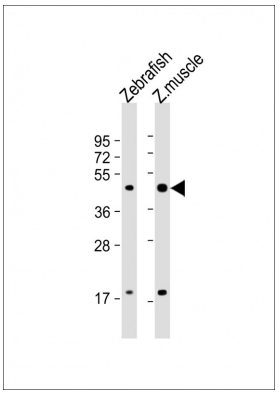
regulator of metabolic and redox processes under normal cellular conditions, and as master transcription factor during integrated stress response (ISR) (By similarity). Binds to asymmetric CRE's as a heterodimer and to palindromic CRE's as a homodimer (By similarity). Core effector of the ISR, which is required for adaptation to various stress such as endoplasmic reticulum (ER) stress, amino acid starvation, mitochondrial stress or oxidative stress. During ISR, atf4 translation is induced via an alternative ribosome translation re-initiation mechanism in response to eif2s1/eIF-2-alpha phosphorylation, and stress-induced atf4 acts as a master transcription factor of stress-responsive genes in order to promote cell recovery (By similarity). Promotes the transcription of genes linked to amino acid sufficiency and resistance to oxidative stress to protect cells against metabolic consequences of ER oxidation (By similarity). In the absence of stress, atf4 translation is at low levels and it is required for normal metabolic processes such as embryonic lens formation, fetal liver hematopoiesis, bone development and synaptic plasticity (By similarity). Acts as a regulator of osteoblast differentiation by promoting expression of osteoblast-specific genes (By similarity). Regulates the circadian expression of the core clock components. Mainly acts as a transcriptional activator in cellular stress adaptation, but it can also act as a transcriptional repressor (By similarity).

Cellular Location Nucleus {ECO:0000250|UniProtKB:P18848}.

Background

Transcriptional activator. Binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters (By similarity).

Images



All lanes : Anti-(DANRE) atf4 Antibody(C-term) at 1:1000 dilution Lane 1: Zebrafish lysate Lane 2: Zebrafish muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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