Data Sheet (Cat.No.TMAH-00882)

Anti-Phospho-ATF2 (Thr71) Antibody (5C542)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5C542
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in 293 whole cell lysate,A549 whole cell lysate,HepG2 whole cell lysate (treated with Calyculin A or EGF) -All lanes Phospho-ATF2 antibody at 1.015μg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 70 KDa -Observed band size: 70 KDa 2. Immunofluorescence staining of A549 cells(treated with 100mM EGF for 20min) with TMAH-00882 at 1:63,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG (H+L).
Application:	ELISA, WB, IF
Recommended	WB:1:500-1:5000; IF:1:20-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human Phospho-ATF2 (T71)
Antigen Species:	Human
Gene ID:	1386
Uniprot ID:	P15336
Synonyms:	HB16;CRE-BP1;ATF2 (p-T71);Phospho-ATF2 (T71);p-ATF2 (T71);p-ATF2 (Thr71);activating transcription factor 2;ATF2 (p-Thr71);CREB-2;TREB7;CREB2
Biology Area:	Epigenetics and Nuclear Signaling

Research Background

Transcriptional activator which regulates the transcription of various genes, including those involved in anti-apoptosis, cell growth, and DNA damage response. Dependent on its binding partner, binds to CRE (cAMP response element) consensus sequences (5'-TGACGTCA-3') or to AP-1 (activator protein 1) consensus sequences (5'-TGACTCA-

3'). In the nucleus, contributes to global transcription and the DNA damage response, in addition to specific transcriptional activities that are related to cell development, proliferation and death. In the cytoplasm, interacts with and perturbs HK1- and VDAC1-containing complexes at the mitochondrial outer membrane, thereby impairing mitochondrial membrane potential, inducing mitochondrial leakage and promoting cell death. The phosphorylated form (mediated by ATM) plays a role in the DNA damage response and is involved in the ionizing radiation (IR)-induced S phase checkpoint control and in the recruitment of the MRN complex into the IR-induced foci (IRIF). Exhibits histone acetyltransferase (HAT) activity which specifically acetylates histones H2B and H4 in vitro. In concert with CUL3 and RBX1, promotes the degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. Can elicit oncogenic or tumor suppressor activities depending on the tissue or cell type.

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