

ARG51557 anti-ATF4 phospho (Ser245) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATF4 phospho (Ser245)
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATF4
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 245 (N-R-S(p)-L-P) derived from Human ATF4.
Conjugation	Un-conjugated
Alternate Names	DNA-binding protein TAXREB67; TAXREB67; Tax-responsive enhancer element-binding protein 67; cAMP-dependent transcription factor ATF-4; Cyclic AMP-dependent transcription factor ATF-4; Activating transcription factor 4; CREB2; CREB-2; Cyclic AMP-responsive element-binding protein 2; cAMP-responsive element-binding protein 2; TXREB; TaxREB67

Application Instructions

Application table	Application	Dilution
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg ²⁺ and Ca ²⁺ , pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

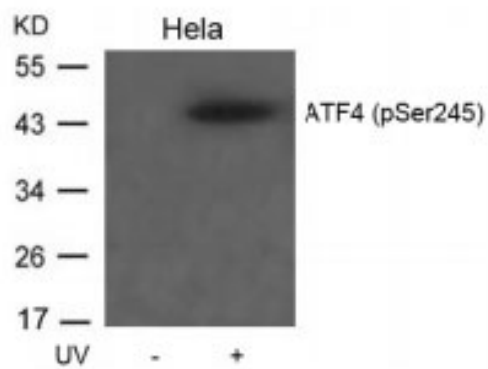
cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

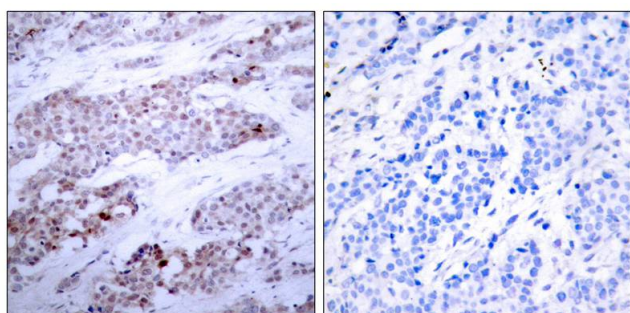
Bioinformation

Database links	GeneID: 468 Human Swiss-port # P18848 Human
Gene Symbol	ATF4
Gene Full Name	activating transcription factor 4
Background	ATF4 encodes a transcription factor that was originally identified as a widely expressed mammalian DNA binding protein that could bind a tax-responsive enhancer element in the LTR of HTLV-1. The encoded protein was also isolated and characterized as the cAMP-response element binding protein 2 (CREB-2). The protein encoded by this gene belongs to a family of DNA-binding proteins that includes the AP-1 family of transcription factors, cAMP-response element binding proteins (CREBs) and CREB-like proteins. These transcription factors share a leucine zipper region that is involved in protein-protein interactions, located C-terminal to a stretch of basic amino acids that functions as a DNA binding domain. Two alternative transcripts encoding the same protein have been described. Two pseudogenes are located on the X chromosome at q28 in a region containing a large inverted duplication.
Function	Transcriptional activator. Binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Cooperates with FOXO1 in osteoblasts to regulate glucose homeostasis through suppression of beta-cell production and decrease in insulin production (By similarity). It binds to a Tax-responsive enhancer element in the long terminal repeat of HTLV-I. Regulates the induction of DDIT3/CHOP and asparagine synthetase (ASNS) in response to ER stress. In concert with DDIT3/CHOP, activates the transcription of TRIB3 and promotes ER stress-induced neuronal apoptosis by regulating the transcriptional induction of BBC3/PUMA. Activates transcription of SIRT4. Regulates the circadian expression of the core clock component PER2 and the serotonin transporter SLC6A4. Binds in a circadian time-dependent manner to the cAMP response elements (CRE) in the SLC6A4 and PER2 promoters and periodically activates the transcription of these genes. [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	39 kDa
PTM	Ubiquitinated by SCF(BTRC) in response to mTORC1 signal, followed by proteasomal degradation and leading to down-regulate expression of SIRT4. Phosphorylated by NEK6 (By similarity). Phosphorylated on the betaTrCP degron motif at Ser-219, followed by phosphorylation at Thr-213, Ser-224, Ser-231, Ser-235 and Ser-248, promoting interaction with BTRC and ubiquitination. Phosphorylation is promoted by mTORC1 (By similarity). Phosphorylated by NEK6.



ARG51557 anti-ATF4 phospho (Ser245) antibody WB image

Western blot: Extracts from HeLa cells untreated or treated with UV stained with ARG51557 anti-ATF4 phospho (Ser245) antibody.



ARG51557 anti-ATF4 phospho (Ser245) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51557 anti-ATF4 phospho (Ser245) antibody (left) or the same antibody preincubated with blocking peptide (right).