ARG54917
anti-ATF6 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATF6
Tested Reactivity	Hu, Ms
Tested Application	ELISA, ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATF6
Species	Human
Immunogen	Synthetic peptide (16 aa) within aa. 470-520 of Human ATF6.
Conjugation	Un-conjugated
Alternate Names	ATF6A; cAMP-dependent transcription factor ATF-6 alpha; ATF6-alpha; Activating transcription factor 6 alpha; Cyclic AMP-dependent transcription factor ATF-6 alpha

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
ICC/IF	10 µg/ml
WB	0.5 - 1 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control: MCF7 Cell Lysate

Properties

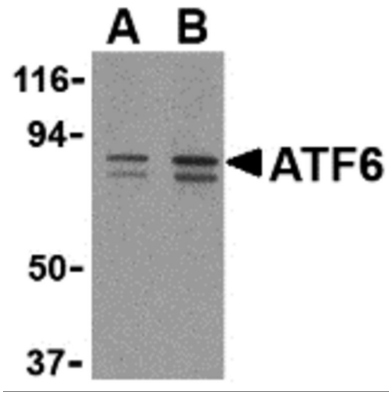
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. 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

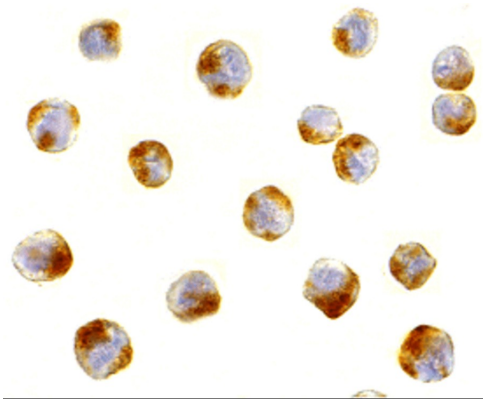
Database links	GeneID: 226641 Mouse GeneID: 22926 Human Swiss-port # F6VAN0 Mouse Swiss-port # P18850 Human
Gene Symbol	ATF6
Gene Full Name	activating transcription factor 6
Background	ATF6 Antibody: Disruptions of protein folding and maturation in the endoplasmic reticulum (ER) result in the activation of the unfolded protein response (UPR), an integrated cellular signaling pathway that transmits information from the ER lumen to the cytoplasm and nucleus. Activating transcription factor 6 (ATF6) as well as the ER-transmembrane protein kinases IRE1p and PERK are the major transducers of the UPR. ATF6 is an ER transmembrane protein that is normally bound to the ER chaperone GRP78, but upon ER stress is released from GRP78 and proteolytically cleaved to yield a cytosolic fragment which then migrates to the nucleus, and together with the transcription factor XBP-1, activates transcription of UPR-responsive genes. ATF6 has two isoforms (ATF6α and ATF6β); only ATF6α is recognized by this antibody.
Function	Transcription factor that acts during endoplasmic reticulum stress by activating unfolded protein response target genes. Binds DNA on the 5'-CCAC[GA]-3'half of the ER stress response element (ERSE) (5'-CCAAT-N(9)-CCAC[GA]-3') and of ERSE II (5'-ATTGG-N-CCACG-3'). Binding to ERSE requires binding of NF-Y to ERSE. Could also be involved in activation of transcription by the serum response factor. [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	75 kDa
PTM	During unfolded protein response, a fragment of approximately 50 kDa containing the cytoplasmic transcription factor domain is released by proteolysis. The cleavage seems to be performed sequentially by site-1 and site-2 proteases. N-glycosylated. The glycosylation status may serve as a sensor for ER homeostasis, resulting in ATF6 activation to trigger the unfolded protein response (UPR). Phosphorylated in vitro by MAPK14/P38MAPK.

Images



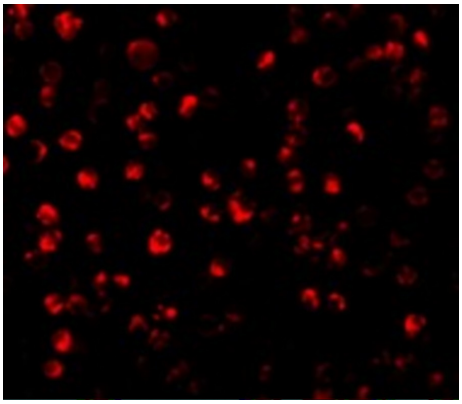
ARG54917 anti-ATF6 antibody WB image

Western blot: MCF7 cell lysate stained with ARG54917 anti-ATF6 antibody at (A) 0.5 and (B) 1 ug/ml dilution.



ARG54917 anti-ATF6 antibody ICC/IF image

Immunocytochemistry: MCF7 cells stained with ARG54917 anti-ATF6 antibody at 10 ug/ml dilution.



ARG54917 anti-ATF6 antibody ICC/IF image

Immunofluorescence: MCF7 cells stained with ARG54917 anti-ATF6 antibody at 10 ug/ml dilution.