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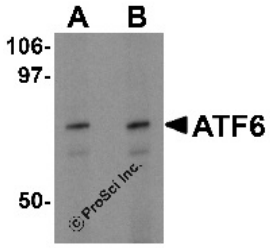
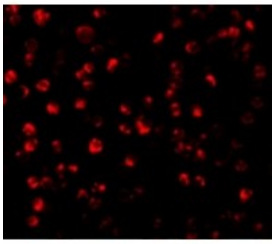
ATF6 Antibody

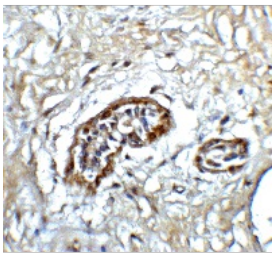
CATALOG NUMBER: 3681



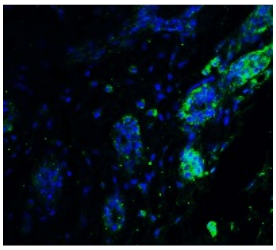
Western blot analysis of ATF6 in EL4 cell lysate with ATF6 antibody at (A) 0.5 and (B) 1 ug/mL.



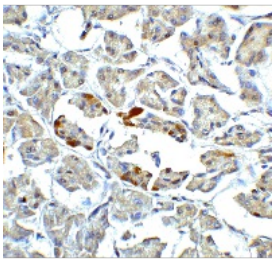
Immunofluorescence of ATF6 in MCF7 cells with ATF6 antibody at 10 ug/mL.



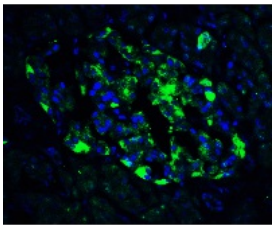
Immunohistochemistry of ATF6 in human breast tissue with ATF6 antibody at 5 ug/ml.



Immunofluorescence of ATF6 in human breast tissue with ATF6 antibody at 20 ug/ml.



Immunohistochemistry of ATF6 in human pancreas tissue with ATF6 antibody at 5 ug/ml.



Immunofluorescence of ATF6 in human pancreas tissue with ATF6 antibody at 20 ug/ml.

Immunocytochemical staining of MCF7 cells using ATF6 antibody at 10 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Rat: (100%)
TESTED APPLICATIONS:	ELISA, ICC, IF, IHC-P, WB
APPLICATIONS:	ATF6 antibody can be used for the detection of ATF6 by Western blot at 0.5 - 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL and immunocytochemistry starting at 10 ug/mL. For immunofluorescence start at 10 ug/mL.

USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1287 - EL4 Cell Lysate
IMMUNOGEN:	ATF6 antibody was raised against a 16 amino acid synthetic peptide from near the carboxy terminus of human ATF6. The immunogen is located within amino acids 470 - 520 of ATF6.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	ATF6 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	ATF6 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	ATF6 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	ATF6 Antibody: ATF6A, Cyclic AMP-dependent transcription factor ATF-6 alpha, Activating transcription factor 6 alpha, cAMP-dependent transcription factor ATF-6 alpha
ACCESSION NO.:	NP_031374
PROTEIN GI NO.:	56786157
OFFICIAL SYMBOL:	ATF6
GENE ID:	22926

Background

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.
REFERENCES:	1) Liu CY and Kaufman RJ. The unfolded protein response. J. Cell Sci. 2003; 1861-2.
	2) Haze K, Yoshida H, Yanagi H, et al. Mammalian transcription factor ATF6 is synthesized as a transmembrane protein and activated by proteolysis in response to endoplasmic stress. Mol. Cell. Biol. 1999; 10:3787-99.
	3) Little E, Ramakrishnan M, Roy B, et al. The glucose-regulated proteins (GRP78 and GRP94): functions, gene regulation, and applications. Crit. Rev. Eukaryot. Gene Expr. 1994; 4:1-18.
	4) Yoshida H, Matsui T, Yamamoto T, et al. XBP1 mRNA is induced by ATF6 and spliced by IRE1p in response to ER stress to produce a highly active transcription factor. Cell 2001; 107:881-91.

FOR RESEARCH USE ONLY

December 12, 2016