

ATF4 Polyclonal Antibody

Catalog number: 10835-1-AP

Size: 43 µg/150 µl

Source: Rabbit

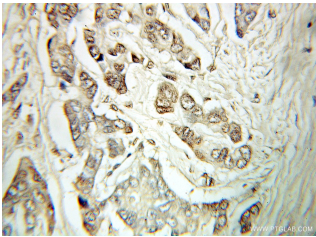
Isotype: IgG

Synonyms:

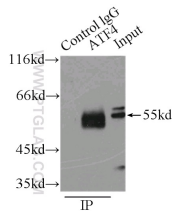
ATF4; ATF4, CREB 2, CREB2,

DNA binding protein

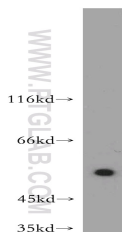
TAXREB67, TAXREB67, TXREB



Immunohistochemical of paraffin-embedded human breast cancer using 10835-1-AP(ATF4 antibody) at dilution of 1:100 (under 10x lens)



IP Result of anti-ATF4 (IP:10835-1-AP, 3µg; Detection:10835-1-AP 1:400) with HEK-293 cells lysate 6000µg.



A431 cells were subjected to SDS PAGE followed by western blot with 10835-1-AP(ATF4 antibody) at dilution of 1:500

Background

ATF4 is a transcription factor, that accumulates predominantly in osteoblasts, where it regulates terminal osteoblast differentiation and bone formation[PMID: 19016586]. As a basic leucine-zipper (bZip) transcription factor, ATF4 can regulate amino acid metabolism, cellular redox state, and anti-stress responses. It also regulates age-related and diet-induced obesity and glucose homeostasis in mammals, and has conserved metabolic functions in flies[PMID: 19726872]. Due to its location at chromosome 22q13, a region linked to schizophrenia, ATF4 is considered as a positional candidate gene for schizophrenia[PMID: 18163433]. Otherwise, since ATF4 is induced by tumour microenvironmental factors, and regulates processes relevant to cancer progression, it might serve as a potential therapeutic target in cancer. Endogenous ATF4 protein has a molecular mass of 50kd. [PMID: 17726049]. This antibody is a rabbit polyclonal antibody raised against full length human ATF4 antigen. The antibody recognizes the 38kd ATF4 protein and its phosphorylated forms (50kd).

Applications

Tested applications:	ELISA, WB, IHC, IP, FC
Cited applications:	IHC, WB
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Human, mouse
Calculated ATF4 MW:	39 kDa
Observed ATF4 MW:	50-58 kDa, 35-38 kDa
Positive WB detected in	A431 cells, DU 145 cells, HEK-293 cells, mouse kidney tissue, rat brain tissue, SGC-7901 cells
Positive IP detected in	HEK-293 cells
Positive IHC detected in	Human breast cancer tissue
Positive FC detected in	MCF-7 cells
Recommended dilution:	WB: 1:200-1:2000 IP: 1:200-1:1000 IHC: 1:20-1:200 FC: N/A

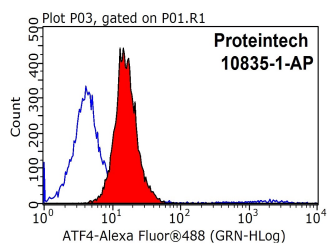
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

Immunogen:	Ag1279
GenBank accession number:	BC022088
Gene ID (NCBI):	468
Full name:	Activating transcription factor 4 (tax-responsive enhancer element B67)

Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.1% sodium azide and 50% glycerol pH 7.3. Store at -20°C.



1X10⁶ MCF-7 cells were stained with 0.2ug ATF4 antibody (10835-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.