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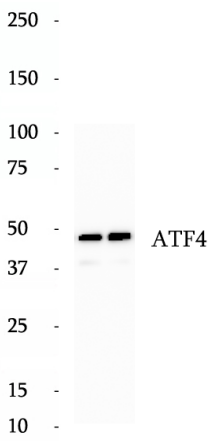
Certificate of Analysis

Catalog Number	BP60345
Product Name	Anti-ATF4 antibody

Physical and Chemical Properties

Molecular Weight	45-50 kDa
GenBank	BC022088
Uniprot	P18848
Concentration	1440 µg/ml
Form	Liquid
Storage Instruction	10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do Not Aliquot.
Chemical Structure OR Tested Image	

Product Information

Description	ATF4 is a transcription factor, that accumulates predominantly in osteoblasts, where it regulates terminal osteoblast differentiation and bone formation. 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. Due to its location at chromosome 22q13, a region linked to schizophrenia, ATF4 is considered as a positional candidate gene for schizophrenia. 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. ATF4 can bind DNA as a homodimer and as a heterodimer. ATF4 is ubiquitinated by SCF (BTRC) in response to mTORC1 signal, followed by proteasomal degradation and leading to down-regulate expression of SIRT4, so the molecular weight of ATF4 may be 70 kDa.
Tested Applications	WB: 1:1000; IF: 1:100-1:300; IHC:1:50-1:200
Species Reactivity	Human, Mouse, Rat
Host Species/Isotype	Rabbit/IgG

Analytical Data

Quality Assurance	The biological and chemical parameters such as concentration, purity, application and specificity of the tested antibody comply with the above-mentioned criteria of the product.

750 50th St, Brooklyn, NY 11220, USA

https://www.purduebio.com

1-877.618.7311

info@purduebio.com

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