For Research Use Only

BZW1 Recombinant antibody

Catalog Number:85655-1-RR

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Basic Information

Catalog Number:
85655-1-RR

Concentration:
1000 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG13830

GenBank Accession Number:
BC001804

GeneID (NCBI):
9689

UNIPROT ID:
Q7L1Q6

Full Name:
basic leucine zipper and W2 domains 1

Calculated MW:
353 aa, 41 kDa

Observed MW:
45 kDa

Purification Method:
Protein A purification

CloneNo.:
243162H4

Recommended Dilutions:
WB 1:5000-1:50000
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IF/ICC, ELISA

Species Specificity:
human, mouse, rat

Positive Controls:

WB : MCF-7 cells, HepG2 cells, HeLa cells, mouse kidney tissue, mouse liver tissue, rat testis tissue, human testis tissue

IF/ICC : A431 cells,

Background Information

BZW1, also known as basic leucine zipper and W2 domains 1, is a member of the basic leucine zipper (bZIP) superfamily of transcription factors. It is a 45 kDa protein that contains an N-terminal bZIP domain for protein interactions and a C-terminal nucleotide (ATP or GTP) binding domain. Human BZW1 can activate transcription of the histone H4 gene and serve as a co-regulator with other transcription factors to control the cell cycle. In recent years, BZW1 has been identified as enhancing phosphorylation to promote glycolysis in pancreatic ductal adenocarcinoma. Moreover, BZW1 has been found to regulate the cell cycle in ovarian cancer, thereby promoting its progression. Additionally, BZW1 plays a crucial role in mucoepidermoid carcinoma of the salivary glands. BZW1 is also involved in the regulation of translation initiation, acting as a translational rheostat and autoregulating its own translation. It has been suggested that BZW1, as well as its paralog BZW2, is an eIF5-mimic protein. BZW1 has been shown to facilitate glycolysis and promote tumor growth in pancreatic ductal adenocarcinoma through potentiating eIF2α phosphorylation, and it may serve as a therapeutic target for patients with pancreatic cancer. In macrophages, activation of BZW1 by CEBPB promotes eIF2α phosphorylation-mediated metabolic reprogramming and endoplasmic reticulum stress. BZW1 has also been found to be associated with the Wnt/β-catenin pathway in lung adenocarcinoma, potentially influencing epithelial-mesenchymal transition (EMT) processes.

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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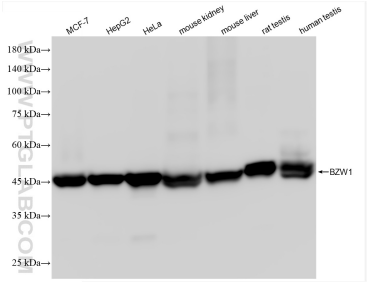
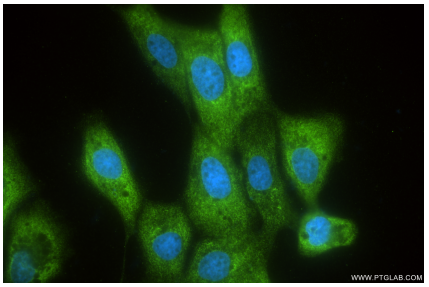
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 85655-1-RR (BZW1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed A431 cells using BZW1 antibody (85655-1-RR, Clone: 243162H4) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).