



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. CTB-BF-M01-W

Anti BIF1 (Clone: BIF1·443)

BACKGROUND

Bif1 (Bax interacting factor 1; also known as SH3GLB1) was initially cloned as a binding partner of the pro-apoptotic Bax protein. This protein is a member of the endophilin B protein family and contains an amino-terminal N-BAR domain and a carboxy-terminal Src homology 3 (SH3) domain^{1), 2)}. Bif1 gene encodes a predicted protein of 365 amino acid and mouse and human Bif-1 protein are highly conserved and share 96% identity at the amino acids level. RNA expression of Bif-1 in human tissue is abundant in heart, skeletal muscle, kidney, and placenta¹⁾. Bif-1 protein plays a critical role in apoptosis, mitochondrial morphology and autophagy^{1), 3), 4)}. Loss of Bif-1 suppresses programmed cell death and promotes tumorigenesis⁵⁾.

Product type	Primary antibodies
Host	Rat
Form	Liquid Protein G purified PBS (pH7.4) with 1% BSA and less than 0.1% NaN ₃ as a preservative.
Volume	500 µl
Concentration	0.1 mg/ml
Genebank Info	NP_057093.1(Homo sapiens), NP_062337.1(Mus musculus)
Other Names	SH3-domain GRB2-like endophilin B1, SH3GLB1, CGI-61, KIAA0491, dJ612B15.2, endophilin B1, Bax-interacting factor 1
Antigen	Human Recombinant BIF1
Clone	BIF1·443
Cross reactivity	Human, Mouse
Isotype	IgG2a

Storage	Store below -20°C (below -70°C for prolonged storage). Aliquot to avoid cycles of freeze/thaw.
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| References | <ol style="list-style-type: none">1) Cuddeback SM, et al, (2001) Molecular cloning and characterization of Bif-1. A novel Src homology 3 domain-containing protein that associates with Bax. <i>J Biol Chem.</i> 276: 20559-65. PMID: 112594402) Pierrat B, et al, (2001) SH3GLB, a new endophilin-related protein family featuring an SH3 domain. <i>Genomics.</i> 71: 222-34. PMID: 111618163) Karbowski M, et al, (2004) Endophilin B1 is required for the maintenance of mitochondrial morphology. <i>J Cell Biol.</i> 166: 1027-39.4) Takahashi Y, et al, (2009) Bif-1/endophilin B1: a candidate for crescent driving force in autophagy. <i>Cell Death Differ.</i> 16: 947-55. [Review] PMID: 192658525) Takahashi Y, et al, (2007) Bif-1 interacts with Beclin 1 through UVRAG and regulates autophagy and tumorigenesis. <i>Nat Cell Biol.</i> 9: 1142-51. PMID: 17891140 |
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Example Assay Data

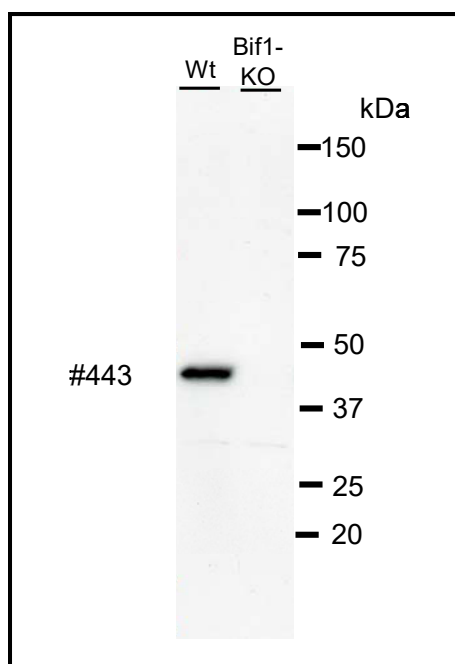


Fig.1 Western blot

Wild type (left lane) or Bif-1 deficient (right lane) mouse embryonic fibroblast with anti Bif-1 antibody (clone #443) at 1:500 dilution blocked with 3% skim milk in TBS-T. Predicted band size is around 42 kDa (calculated weight is 40.8 kDa according to NP_062337.1).

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