

PRODUCT INFORMATION



FOX1 Monoclonal Antibody

Item No. 29264

Overview and Properties

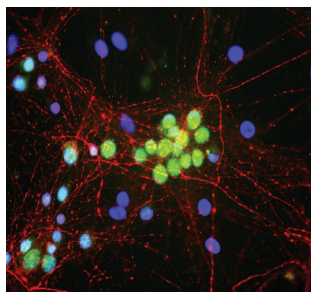
Contents: This vial contains 100 µl of protein G-purified monoclonal antibody.
Synonyms: A2BP1, Ataxin-2-binding Protein 1, RBFOX1, RNA Binding Protein Fox-1 Homolog 1
Immunogen: Recombinant protein from the N-terminus of human FOX1 expressed in *E. coli*
Molecular Weight: ~46/48 kDa
Species Reactivity: (+) Human, bovine, mouse, rat
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: 10 mM sodium azide
Host: Mouse
Applications: Immunofluorescence (IF) and Western blot (WB); the recommended starting dilution is 1:500 for IF and 1:5,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Rat cortical lysate

WB of rat cortical lysate showing specific immunolabeling of the ~46/48 kDa FOX1 protein.



Immunofluorescence of cultured rat neurons showing nuclear and distal cytoplasmic labeling of FOX1 protein.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

FOX1, also known as ataxin-2-binding protein 1 (A2BP1) and RNA binding protein fox-1 homolog 1 (RBFOX1), is an RNA binding protein and alternative splicing regulator encoded by *RBFOX1* in humans.¹⁻³ *RBFOX1* is expressed in the brain, skeletal muscle, and heart and undergoes splicing to generate tissue-specific isoforms.⁴ Neuron-specific FOX1 regulates alternative splicing of genes involved in neuronal development, proliferation, and maintenance.¹ Mutations in *RBFOX1*, including exon deletion, frameshift, and copy number mutations, have been found in patients with rolandic epilepsy, autism, and schizophrenia.^{2,5,6} Cayman's FOX1 Monoclonal Antibody can be used for immunofluorescence (IF) and Western blot (WB) applications. The antibody recognizes FOX1 isoforms at approximately 46 and 48 kDa from human, bovine, mouse, and rat samples.

References

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2. Lal, D., Reinthaler, E.M., Altmüller, J., *et al.* RBFOX1 and RBFOX3 mutations in rolandic epilepsy. *PLoS One* **8(9)**, e73323 (2013).
3. Kuroyanagi, H. Fox-1 family of RNA-binding proteins. *Cell. Mol. Life Sci.* **66(24)**, 3895-3907 (2009).
4. Nakahata, S. and Kawamoto, S. Tissue-dependent isoforms of mammalian Fox-1 homologs are associated with tissue-specific splicing activities. *Nucleic Acids Res.* **33(7)**, 2078-2089 (2005).
5. Martin, C.L., Duvall, J.A., Ilkin, Y., *et al.* Cytogenetic and molecular characterization of A2BP1/FOX1 as a candidate gene for autism. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* **144B(7)**, 869-879 (2007).
6. Xu, B., Roos, J.L., Levy, S., *et al.* Strong association of de novo copy number mutations with sporadic schizophrenia. *Nat. Genet.* **40(7)**, 880-885 (2008).

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