



## Mouse monoclonal to Fox1 [Ataxin-2 binding protein1, A2BP1]

<b>Catalogue No.:</b>	M-1688-100
<b>Description:</b>	Fox1 is one of a family of 3 mammalian Fox1 homologues. Fox1 was discovered in <i>C. elegans</i> as a gene involved in sex determination, and the name Fox is an acronym of "Feminizing locus on X" (1). The <i>C. elegans</i> Fox1 protein and its 3 mammalian homologues are all about 46kDa proteins and each includes a central highly conserved RRM type RNA recognition motif, which corresponds to a small ~70 amino acid structure consisting of 4 beta strands and two alpha-helices. This region is identical in all three mammalian Fox1 family proteins. An alternate name for Fox 1 is ataxin-2 binding protein 1 (A2BP1), since it was discovered in a yeast two hybrid screen using ataxin-2 as bait (2). As with the other Fox proteins, it is assumed that Fox1/A2BP1 has a role in the RNA splicing in the nervous system (3). Fox3, a protein also known as NeuN, is a widely used marker of neuronal nuclei and proximal cytoplasm (4, 5). Like Fox3, Fox1 is expressed in neuronal nuclei, but with a different pattern of expression than Fox3. For example, in the cerebellum Fox3 does not stain Purkinje neurons and Golgi neurons, but these two neuron types are stained by Fox1 antibody (6).
<b>Batch No.:</b>	See vial label
<b>Unit size:</b>	100 uL
<b>Antigen:</b>	N-terminal 100 amino acids of human Fox1 as expressed in and purified from <i>E. coli</i> .
<b>Antibody Type:</b>	Monoclonal
<b>Isotype:</b>	IgG1
<b>Other Names:</b>	ataxin-2 binding protein 1 (A2BP1)
<b>Produced in:</b>	Mouse
<b>Applications:</b>	Immunocytochemistry (IHC) and Western Blotting (WB). A dilution of 1:1,000-1:2,000 is recommended for WB. A dilution of 1:500-1:1000 is recommended for ICC. The optimal dilution should be determined by the end user.
<b>Specificity:</b>	The antibody reacts with a 48 kDa and 46 kDa band by Western blot on extract from mouse brain. It has also been used successfully for immunocytochemistry on rat neuronal cultures.
<b>Species Against:</b>	Human, bovine, mouse and rat. It is expected that it will work on other mammal tissues.
<b>Antibody Against:</b>	Fox1/A2BP1
<b>Form:</b>	Lyophilized from PBS. Contains 5% trehalose.
<b>Appearance:</b>	White powder
<b>Reconstitution:</b>	Reconstitute in sterile distilled water. Centrifuge to remove any insoluble material.
<b>Storage:</b>	After reconstitution of lyophilized antibody, aliquot and store at -20C for a higher stability. Avoid freeze-thaw cycles.
<b>Expiry Date:</b>	12 months after purchase
<b>General References:</b>	1. Hodgkin J, Zellan JD, Albertson DG. Identification of a candidate primary sex determination locus, fox-1, on the X chromosome of <i>Caenorhabditis elegans</i> . <i>Development</i> 120:3681-3689 (1994).

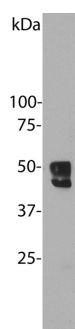
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2. Shibata H, Huynh DP, Pulst SM. A novel protein with RNA-binding motifs interacts with ataxin-2. *Hum Mol Genet.* 39:1303-13 (2000).
3. Underwood JG, Boutz PL, Dougherty JD, Stoilov P and Black DL. Homologues of the *Caenorhabditis elegans* Fox-1 protein are neuronal splicing regulators in mammals. *Mol. Cell. Biol.* 25:10005-10016 (2005).
4. Mullen RJ, Buck CR, Smith AM. NeuN, a neuronal specific nuclear protein in vertebrates. *Development* 116:201-211 (1994).
5. Kim KK, Adelstein RS, Kawamoto S. Identification of neuronal nuclei (NeuN) as Fox-3, a new member of the Fox-1 gene family of splicing factors. *J. Biol. Chem.* 284:31052-31061 (2009).
6. Kim KK, Kim YC, Adelstein RS, Kawamoto S. Fox-3 and PSF interact to activate neural cell-specific alternative splicing. *Nucleic Acids Res.* 39:3064-78 (2011).



Extract from mouse brain. The antibody recognizes the ~48 kDa and 46 kDa proteins.

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