abcam

Product datasheet

Anti-Drosophila FMR1 antibody [6A15] ab10299

1 Abreviews 14 References

Overview

Product name	Anti-Drosophila FMR1 antibody [6A15]
Description	Mouse monoclonal [6A15] to Drosophila FMR1
Host species	Mouse
Tested applications	**Suitable for:** ELISA, ICC/IF, IP, WB
Species reactivity	**Reacts with:** Drosophila melanogaster **Does not react with:** Human
Immunogen	Fusion protein corresponding to Drosophila melanogaster Drosophila FMR1. His-dFMR1 fusion protein (Drosophilia melanogaster) (C-terminal 580aa). Database link: **Q9NFU0**

General notes

Fragile X syndrome is the most common inherited form of mental retardation. It is caused by loss of FMR1 gene activity due to either lack of expression or expression of a mutant form of the protein. In mammals, FMR1 is a member of a small protein family that consists of FMR1, FXR1, and FXR2. All three members bind RNA and contain sequence motifs that are commonly found in RNA-binding proteins, including two KH domains and an RGG box.The Drosophila genome contains a single gene homologous to the FXR family. dFMR1 is subjected to transcriptional and posttranscriptional regulation during development and it homomerizes, like its human counterpart. dFMR1 profile of expression recapitulates that of the human FXR protein family: it is highly enriched in muscles, in central nervous system and in gonads. In the larval brain, anti-dFMR1 also recognizes mushroom bodies, a centre that mediates learning and memory. These features make the fly an ideal system to analyse the role of the FXR family and to identify genes in the FMRP pathway.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	Protein A purified from tissue culture supernatant.
Primary antibody notes	Fragile X syndrome is the most common inherited form of mental retardation. It is caused by loss of FMR1 gene activity due to either lack of expression or expression of a mutant form of the protein. In mammals, FMR1 is a member of a small protein family that consists of FMR1, FXR1, and FXR2. All three members bind RNA and contain sequence motifs that are commonly found in RNA-binding proteins, including two KH domains and an RGG box.The Drosophila genome contains a single gene homologous to the FXR family. dFMR1 is subjected to transcriptional and posttranscriptional regulation during development and it homomerizes, like its human counterpart. dFMR1 profile of expression recapitulates that of the human FXR protein family: it is highly enriched in muscles, in central nervous system and in gonads. In the larval brain, anti-dFMR1 also recognizes mushroom bodies, a centre that mediates learning and memory. These features make the fly an ideal system to analyse the role of the FXR family and to identify genes in the FMRP pathway.
Clonality	Monoclonal
Clone number	6A15
Myeloma	Sp2/0
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab10299 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IP	★★★★☆ (1)	Use at an assay dependent concentration. See Abreview.
WB		Use at an assay dependent concentration.

Target

Relevance Drosophila FMR1 is a RNA-binding protein that associates with translating ribosomes and acts as a negative translational regulator of specific mRNAs. Represses translation of futsch to regulate microtubule-dependent synaptic growth and function. Part of the RNA interference (RNAi)-related apparatus; double-stranded RNA induces potent and specific gene silencing. Regulates photoreceptor structure and neurotransmission in the eye. Required for stability of the

	central pair of microtubules in the spermatid axoneme
Cellular localization	Cytoplasmic

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors