

Anti-FMRP antibody [EPR20008-144] - BSA and Azide free (Detector) ab242905

Recombinant RabMAb

[3 Images](#)

Overview

Product name	Anti-FMRP antibody [EPR20008-144] - BSA and Azide free (Detector)
Description	Rabbit monoclonal [EPR20008-144] to FMRP - BSA and Azide free (Detector)
Host species	Rabbit
Tested applications	Suitable for: WB, Sandwich ELISA
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: C2C12 cell lysate. Human brain lysate.
General notes	<p>ab242905 is a BSA and Azide Free antibody supplied in an unconjugated format and it is suitable for sandwich ELISAs to quantify Human FMRP. The recommended pair for sandwich ELISA is:</p> <p>Capture: ab242660, Human FMRP Capture Antibody (unconjugated) Detector: ab242905, Human FMRP Detector Antibody (unconjugated)</p> <p>The reference range value is 40 - 2560 pg/ml.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>The recommended antibody orientation is based on internal optimization for ELISA-based assays. Antibody orientation is assay dependent and needs to be optimized for each assay type. Please note that the range provided for this antibody is only an estimation based on the performance of the product using the recommended antibody pair. Performance of the antibody pair will depend on the specific characteristics of your assay. We guarantee the product works in sandwich ELISA, but we do not guarantee the sensitivity or dynamic range of the antibody in your assay.</p>

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20008-144
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab242905 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
WB		1/1000. Detects a band of approximately 75 kDa (predicted molecular weight: 71 kDa).
Sandwich ELISA		Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [EPR20008-157] to FMRP - BSA and Azide free (Capture) (ab242660) .

Target

Function	Translation repressor. Component of the CYFIP1-EIF4E-FMR1 complex which binds to the mRNA cap and mediates translational repression. In the CYFIP1-EIF4E-FMR1 complex this subunit mediates translation repression (By similarity). RNA-binding protein that plays a role in intracellular RNA transport and in the regulation of translation of target mRNAs. Associated with polysomes. May play a role in the transport of mRNA from the nucleus to the cytoplasm. Binds strongly to poly(G), binds moderately to poly(U) but shows very little binding to poly(A) or poly(C).
Tissue specificity	Highest levels found in neurons, brain, testis, placenta and lymphocytes. Also expressed in epithelial tissues and at very low levels in glial cells.
Involvement in disease	Defects in FMR1 are the cause of fragile X syndrome (FRAX) [MIM:300624]. Fragile X syndrome

is a common genetic disease (has a prevalence of one in every 2000 children) which is characterized by moderate to severe mental retardation, macroorchidism (enlargement of the testicles), large ears, prominent jaw, and high-pitched, jocular speech. The defect in most fragile X syndrome patients results from an amplification of a CGG repeat region which is directly in front of the coding region.

Defects in FMR1 are the cause of fragile X tremor/ataxia syndrome (FXTAS) [MIM:300623]. In FXTAS, the expanded repeats range in size from 55 to 200 repeats and are referred to as 'premutations'. Full repeat expansions with greater than 200 repeats results in fragile X mental retardation syndrome [MIM:300624]. Carriers of the premutation typically do not show the full fragile X syndrome phenotype, but comprise a subgroup that may have some physical features of fragile X syndrome or mild cognitive and emotional problems.

Defects in FMR1 are the cause of premature ovarian failure syndrome type 1 (POF1) [MIM:311360]. An ovarian disorder defined as the cessation of ovarian function under the age of 40 years. It is characterized by oligomenorrhea or amenorrhea, in the presence of elevated levels of serum gonadotropins and low estradiol.

Sequence similarities

Belongs to the FMR1 family.
Contains 2 KH domains.

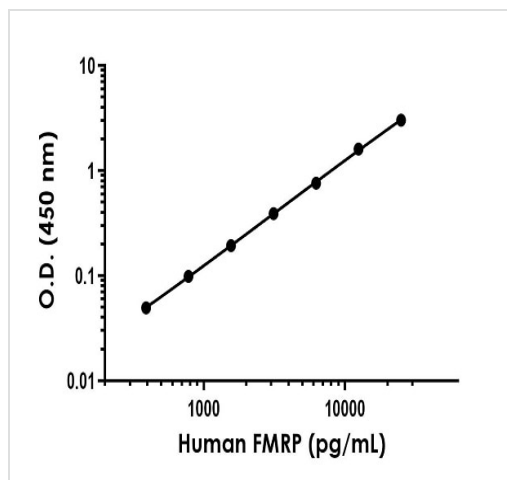
Post-translational modifications

Phosphorylated on several serine residues.

Cellular localization

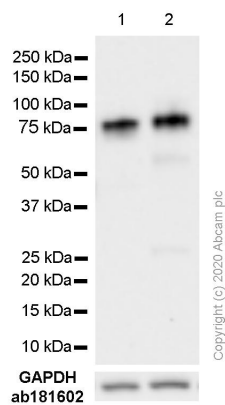
Cytoplasm. Nucleus > nucleolus.

Images



Representative standard curve from corresponding SimpleStep ELISA® Kit ([ab224885](#)).

Sandwich ELISA - Anti-FMRP antibody [EPR20008-144] - BSA and Azide free (Detector) (ab242905)



Western blot - Anti-FMRP antibody [EPR20008-144]
- BSA and Azide free (Detector) (ab242905)

All lanes : Anti-FMRP antibody [EPR20008-144] - BSA and Azide free (Detector) (ab242905) at 1/1000 dilution

Lane 1 : C2C12 (Mouse myoblast cell line) cell lysate

Lane 2 : Human brain lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Predicted band size: 71 kDa

Observed band size: 75 kDa

Exposure time: 37 seconds

Blocking buffer: 5% NFDM/TBST

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-FMRP antibody [EPR20008-144] - BSA and Azide free (Detector) (ab242905)

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

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