

## Product datasheet

# Anti-FMRP antibody ab27455

★★★★☆ 2 Abreviews 3 References 画像数 3

### 製品の概要

製品名	Anti-FMRP antibody
製品の詳細	Rabbit polyclonal to FMRP
由来種	Rabbit
アプリケーション	<b>適用あり:</b> ICC/IF, WB, IHC-FoFr, IHC-P
種交差性	<b>交差種:</b> Human
免疫原	Synthetic peptide conjugated to KLH derived from within residues 600 to the C-terminus of Human FMRP. Immunogen の所有権に関して
ポジティブ・コントロール	This antibody gave a positive signal in HeLa whole cell lysate and HeLa nuclear lysate. This antibody gave a positive result when used in the following formaldehyde fixed cell lines: SKNSH.
特記事項	ab27455 does not recognise endogenous FMRP (expected size 71 kDa) in human testes lysate, which may be due to low expression levels of FMRP.

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.1% Sodium Azide Constituents: PBS, pH 7.6
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab27455** in the following tested applications.

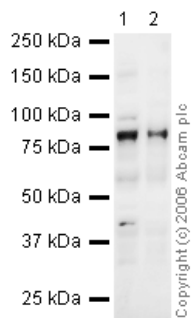
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 85 kDa (predicted molecular weight: 71 kDa).
IHC-FoFr	★★★★☆	Use at an assay dependent concentration.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## ターゲット情報

機能	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).
組織特異性	Highest levels found in neurons, brain, testis, placenta and lymphocytes. Also expressed in epithelial tissues and at very low levels in glial cells.
関連疾患	<p>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.</p> <p>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.</p> <p>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.</p>
配列類似性	<p>Belongs to the FMR1 family.</p> <p>Contains 2 KH domains.</p>
翻訳後修飾	Phosphorylated on several serine residues.
細胞内局在	Cytoplasm. Nucleus > nucleolus.

## 画像



Western blot - Anti-FMRP antibody (ab27455)

**All lanes :** Anti-FMRP antibody (ab27455) at 1  $\mu\text{g/ml}$

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2 :** HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG H&L (HRP) Pre-Adsorbed at 1/10000 dilution

**Predicted band size:** 71 kDa

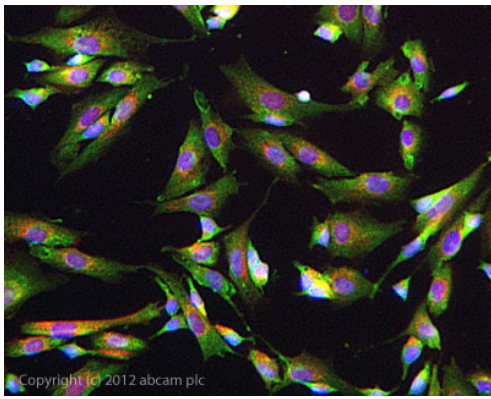
**Observed band size:** 85 kDa

ab27455 detects a band around 85 kDa in HeLa and HeLa Nuclear lysate, which is consistent with bands seen by other researchers using FMRP antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FMRP antibody (ab27455)

IHC image of FMRP staining in human cerebral cortex FFPE section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab27455, 1  $\mu\text{g/ml}$ , for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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Immunocytochemistry/ Immunofluorescence - Anti-FMRP antibody (ab27455)

ab27455 stained SKNSH cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab27455 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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