

Datasheet for ABIN1607680

anti-RFP antibody

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Overview

Quantity:	100 µg
Target:	RFP
Reactivity:	Discosoma
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	Anti-RFP monoclonal antibody is a Red Fluorescent Protein (RFP) fusion protein corresponding to the full length amino acid sequence (234aa) derived from the mushroom polyp coral Discosoma. Immunogen Type: Recombinant Protein
Clone:	8E5-G7
Isotype:	IgG2a
Specificity:	Expect reactivity against RFP and its variants: mCherry, tdTomato, mBanana, mOrange, mPlum, mOrange and mStrawberry.
Purification:	Anti-RFP Monoclonal Antibody was purified from concentrated tissue culture supernate by Protein A chromatography.

Target Details

Target:	RFP
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Target Details

Abstract: [RFP Products](#)

Background: Antibodies to RFP (*Discosoma* spp.) are intended for use in immunological assays including ELISA, western blotting, fluorometry and fluorescence activated cell sorting (FACS). Synonyms: DsRed, rDsRed, *Discosoma* sp. Red Fluorescent Protein, Red fluorescent protein drFP583

Application Details

Application Notes: Anti-RFP antibodies is designed to detect Red Fluorescent Protein and its variants. This antibody can be used to detect RFP by ELISA (sandwich or capture) for the direct binding of antigen. Biotin conjugated anti-RFP used in a sandwich ELISA with unconjugated anti-RFP is well suited to titrate RFP in solution. The detection antibody conjugated to biotin is subsequently reacted with streptavidin conjugated HRP. Fluorochrome conjugated anti-RFP can be used to detect RFP by immunofluorescence microscopy in cell expression systems and can detect RFP containing inserts. Significant amplification of signal is achieved using fluorochrome conjugated anti-RFP relative to the fluorescence of RFP alone. For immunoblotting use either alkaline phosphatase or peroxidase conjugated anti-RFP to detect RFP or RFP containing proteins on western blots. Optimal titers for applications should be determined by the researcher.

ELISA Dilution: 1:20.000-1:50.000

Western Blot Dilution: 1:1000-1:3000

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Handling Advice: Avoid cycles of freezing and thawing.

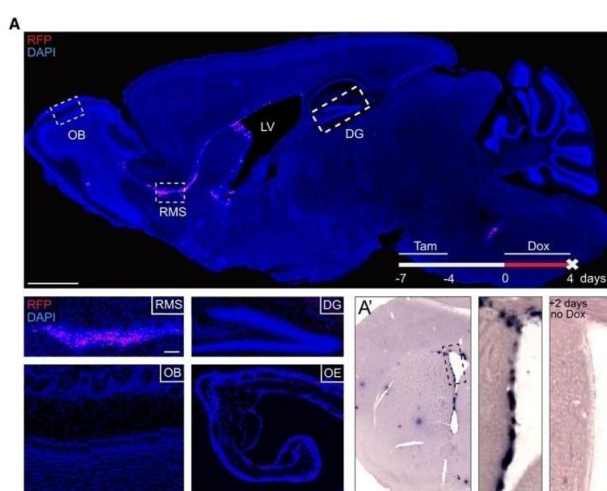
Storage: 4 °C/-20 °C

Storage Comment: Store vial at -20 °C prior to opening. Aliquot contents and freeze at -20 °C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: Expiration date is one (1) year from date of opening.

- Product cited in:
- Singh, Elenio, Leu, Romano, Vaughan, DeRiso, Surendran, Chakrabarti: "A new Elf5CreERT2-GFP BAC transgenic mouse model for tracing Elf5 cell lineages in adult tissues." in: **FEBS letters**, Vol. 593, Issue 10, pp. 1030-1039, (2020) ([PubMed](#)).
- Guan, Quiñones-Frías, Akbergenova, Littleton: "Drosophila Synaptotagmin 7 negatively regulates synaptic vesicle release and replenishment in a dosage-dependent manner." in: **eLife**, Vol. 9, (2020) ([PubMed](#)).
- Donovan, Spencer, Kitt, Eastman, Lobur, Jiao, Silver, Deneris: "Lmx1b is required at multiple stages to build expansive serotonergic axon architectures." in: **eLife**, Vol. 8, (2020) ([PubMed](#)).
- Winkowski, Nagode, Donaldson, Yin, Shamma, Fritz, Kanold: "Orbitofrontal Cortex Neurons Respond to Sound and Activate Primary Auditory Cortex Neurons." in: **Cerebral cortex (New York, N.Y. : 1991)**, Vol. 28, Issue 3, pp. 868-879, (2019) ([PubMed](#)).
- Katrancha, Shaw, Zhao, Myers, Cocco, Jeng, Zhu, Pittenger, Greer, Carr, Xiao, Koleske: "Trio Haploinsufficiency Causes Neurodevelopmental Disease-Associated Deficits." in: **Cell reports**, Vol. 26, Issue 10, pp. 2805-2817.e9, (2019) ([PubMed](#)).
- There are more publications referencing this product on: [Product page](#)

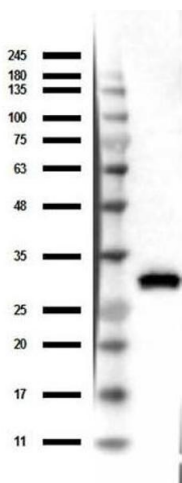
Images



Immunofluorescence (Paraffin-embedded Sections)

Image 1. Characterization of the transgenic model and effect of 4D on the RMSA fluorescence image of a sagittal section of a 4D+ brain after a 4-day treatment with doxycycline showing RFP signal confined to the SVZ and RMS (nuclei counterstained with DAPI, blue). Insets show representative images of specific brain regions (as indicated) and the olfactory epithelium. A' Phase contrast picture of the SVZ upon in situ hybridization against mRNA for RFP in a 4D+ brain treated as in (A) and sacrificed immediately after (left) or 2 days after (right) doxycycline administration. B, C Experimental design (top), fluorescence

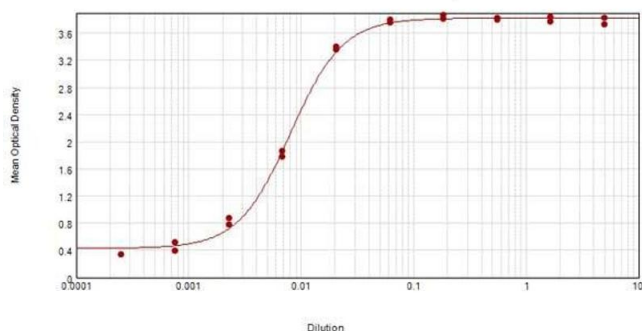
pictures (left with magnified insets), and quantifications (right) of BrdU incorporation in the RMS (B) or SVZ (C). (B) shows the proportion of BrdU in C (Mash1+) and A (DCX+) cells in 4D- (white) and 4D+ (red, among RFP+) mice. (C) shows the proportion of RFP- (black) and RFP+ (red) among BrdU+ cells of 4D+ mice. (A) OB, olfactory bulb, RMS, rostral migratory stream, LV, lateral ventricle, DG, dentate gyrus, OE, olfactory epithelium. (A-C) Tam, tamoxifen, Dox, doxycycline. (B, C) Mean \pm SEM, **P < 0.01, unpaired Student's t-test, N = 3 mice and n > 1,100 cells. Scale bars = 500 (A top, A'), 100 (insets A and A'), 50 (B and C), and 20 (insets B and C) μ m. - figure provided by CiteAb. Source: PMID30643018



Western Blotting

Image 2. Western Blot of Mouse Anti-RFP Antibody Western Blot of Mouse Anti-RFP Antibody. Lane 1: Opal Prestain Molecular weight . Lane 2: 50ng of RFP. Primary Antibody: Mouse Anti-RFP at 1 μ g/mL overnight at 2-8°C. Secondary Antibody: Rabbit Anti-Mouse HRP at 1:40,000 for 30mins at RT. Block: BlockOut Universal blocking buffer . Expect ~27kDa.

Anti-RFP Sensitivity



ELISA

Image 3. ELISA results of purified Mouse anti-RFP Monoclonal Antibody tested against RFP . Each well was coated in duplicate with 1.0 μ g of the antigen. The starting dilution of antibody was 5 μ g/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, anti-Mouse IgG Antibody Peroxidase Conjugated Aecondary and TMB ELISA Peroxidase Substrate .

Please check the [product details page](#) for more images. Overall 9 images are available for ABIN1607680.