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Datasheet for 600-403-379

RFP Antibody Peroxidase Conjugated Pre-Adsorbed

Overview

Description:	Anti-RFP (RABBIT) Antibody Peroxidase Conjugated (Min X Hu Ms & Rt Serum Proteins) - 600-403-379
Item No.:	600-403-379
Size:	100 µg
Applications:	ELISA, WB, IF
Reactivity:	RFP, rRFP
Host Species:	Rabbit

Product Details

Background:	Fluorescent proteins such as Discosoma Red Fluorescent Protein (DsRed) from sea anemone Discosoma sp. mushroom or green fluorescent protein (GFP) from Aequorea victoria jellyfish are widely used in research practice. Fusion RFP and GFP commonly serve as marker for gene expression and protein localization. As DsRed and GFP share only 19% identity, therefore, in general, anti-GFP antibodies do not recognize DsRed protein and vice versa. Structurally, Discosoma red fluorescent protein is similar to Aequorea green fluorescent protein in terms of its overall fold (a β-can) and chromophore-formation chemistry. However, Discosoma red fluorescent protein undergoes an additional step in the chromophore maturation and obligates tetrameric structure. Rockland offers many controls, monoclonal, and polyclonal antibodies for RFP.
Synonyms:	rabbit anti-RFP antibody peroxidase conjugation, rabbit anti-Red Fluorescent Protein antibody peroxidase conjugation, HRP conjugated rabbit anti-RFP antibody, DsRed, rDsRed, Discosoma sp. Red Fluorescent Protein, Red fluorescent protein drFP583
Host Species:	Rabbit
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DsRed

Reactivity:	RFP, rRFP
Immunogen Type:	Recombinant Protein
Immunogen:	The immunogen is a Red Fluorescent Protein (RFP) fusion protein corresponding to the full length amino acid sequence (234aa) derived from the mushroom polyp coral Discosoma.
Purity/Specificity:	Rabbit Anti-RFP Peroxidase Conjugated Antibody was prepared from monospecific rabbit antiserum by immunoaffinity chromatography using Red Fluorescent Protein (Discosoma) coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Expect reactivity against RFP and its variants: mCherry, tdTomato, mBanana, mOrange, mPlum, mOrange and mStrawberry. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-peroxidase, anti-Rabbit Serum and purified and partially purified Red Fluorescent Protein (Discosoma). No reaction was observed against Human, Mouse or Rat serum proteins. ELISA was used to confirm specificity at less than 0.1% of target signal.
Relevant Links:	• UniProtKB - Q9U6Y8

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IF (Based on references)
Application Note:	Rabbit Anti-RFP Peroxidase Conjugated Antibody has been tested in ELISA and Western blot. It can be used to detect RFP by ELISA (sandwich or capture) for the direct binding of antigen or to detect RFP or RFP containing proteins on Western blots. References suggest that the antibody is also suitable for IHC. Optimal titers for applications should be determined by the researcher.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	1:500 - 1:2,000
WB:	1:2,000 - 1:5,000

Formulation

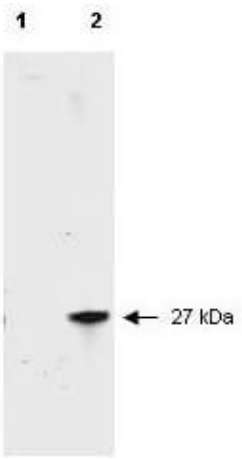
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. 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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western blot of RFP recombinant protein detected with Rockland's unconjugated polyclonal anti-RFP antibody (600-401-379). Lane 1 shows no reaction against a GFP recombinant protein present in 10 ug of HeLa cell extract. Lane 2 shows a single band detected in 10 ug of a HeLa lysate containing RFP recombinant protein. Rockland's polyclonal anti-RFP detects a 27 kDa band corresponding to the epitope tag RFP. A 4-12% Bis-Tris gradient gel (Invitrogen) was used for SDS-PAGE. The protein was transferred to nitrocellulose using standard methods. After blocking the membrane was probed with the unconjugated primary antibody diluted 1:2,500 for 1 h at room temperature followed by washes and reaction with a 1:5,000 dilution of IRDye™800 conjugated Goat-a-Rabbit IgG [H&L] MX (611-132-122). IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

References

- Bohlen MO, El-Nahal HG, Sommer MA. Transduction of Craniofacial Motoneurons Following Intramuscular Injections of Canine Adenovirus Type-2 (CAV-2) in Rhesus Macaques. *Front Neuroanat.* (2019)

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