Datasheet for ABIN7565835

Recombinant anti-RFP antibody

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Overview

Quantity:	50 µg
Target:	RFP
Reactivity:	Discosoma
Host:	Llama
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This RFP antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Dot Blot (DB)

Product Details

Purpose:	Recombinant RFP Antibody
Clone:	RFP40
Fragment:	single-domain Antibody (sdAb)
Characteristics:	Synonyms: recombinant anti-RFP antibody, Red Fluorescent Protein antibody, DsRed, rDsRed, Discosoma sp. Red Fluorescent Protein, Red fluorescent protein drFP583
Purification:	Anti-RFP (VHH) Antibody is a recombinant antibody. The clone was isolated from a library prepared from a hyper-immunized llama host and purified by affinity chromatography from bacterial culture.
Sterility:	Sterile filtered

Target Details

Target:	RFP
Alternative Name:	DsRed (RFP Products)
Background:	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, polyclonal and recombinant antibodies for RFP. A single-domain antibody (sdAb) is a small antibody fragment consisting of the monomeric variable domain derived from camelid heavy chain-only immunoglobulins naturally found in llamas, alpacas and camels. Also known as VHH antibodies, these are the smallest functional antigen-binding fragment that occurs in nature (12 - 14 kDa) and are now being used in biotechnology as a novel antibody scaffold. The small size of the VHH single domain antibody makes it very attractive for use in diagnostic imaging and potentially therapeutic applications.
UniProt:	Q9U6Y8

Application Details

Application Notes:	Application Note: Anti-RFP is a his-tagged monoclonal recombinant antibody designed to detect Red Fluorescent Protein and its conjugates. This antibody has been tested by western blot, dot blot, and ELISA and is intended for use in immunological assays including immunofluorescence and fluorescence activated cell sorting (FACS). The antibody can be labeled with dyes, enzymes or fluorescence, directly or secondarily, for visualization and detection of RFP-conjugated molecules by immunofluorescence. Secondary detection can be achieved using conjugated anti-His tag or anti-VHH antibodies. Optimal titers for applications should be confirmed by the end user. This antibody is not suitable for Western blot detection of denatured RFP. Western Blot Dilution: 1:1000 ELISA Dilution: 1:31,000 Other: Dot Blot: 1.0 µg/mL
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 1X PBS, pH 7.4 Stabilizer: 20 % (v/v) Glycerol Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store 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:	12 months