

## **Product datasheet for TA397420**

## **DsRed Rabbit Polyclonal Antibody**

## **Product data:**

Product Type: Primary Antibodies

Applications: ELISA, IF, IHC, IP, WB

Recommended Dilution: WB: 1:1,000

IHC: User Optimized
IF: User Optimized
ELISA: User Optimized

Reactivity: RFP, rRFP
Host: Rabbit
Clonality: Polyclonal

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.

**Specificity:** RTU Anti-RFP was prepared from monospecific 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-Rabbit Serum and purified and partially purified Red Fluorescent Protein (Discosoma). No

reaction was observed against Human, Mouse or Rat serum proteins.

**Formulation:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Concentration:** sufficient to run 10 immunoblot tests - lot specific

Conjugation: Unconjugated

Storage: Store vial at 2-8° C prior to opening. May 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. Dilute only prior to use.

**Stability:** Expiration date is one (1) year from date of receipt.

Database Link: Q9U6Y8



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Background:

Fluorescent proteins such as green fluorescent protein (GFP) or Discosoma Red Fluorescent Protein (or DsRFP) are widely used in research practice. DsRed is isolated from sea anemone Discosoma sp. mushroom. GFP and DsRed share only 19% identity, therefore, in general, anti-GFP antibodies do not recognize DsRed protein and vice versa. Structurally, DsRed protein is similar to GFP protein in terms of its overall fold (a β-can) and chromophore-formation chemistry. However, GFP protein undergoes an additional step in the chromophore maturation and obligates tetrameric structure. Using site-directed mutagenesis, several DsRed protein variants have been created allowing the red fluorescent protein mature as a monomeric form. Among DsRFP monomeric variants are monomeric mutant mRFP1, mBanana, mCherry, mHoneydew, mPlum, mOrange, mStrawberry and mTangerine that offer a wide range of fluorescent colors. As Rockland RFP polyclonal antibodies are raised against whole RFP protein of wild type, the polyclonal antibodies are expected to recognize all RFP variant forms. This RFP antibody has been pre-absorbed to eliminate any potential crossreactivity to human, mouse and rat serum proteins. The antibodies are also confirmed for non-reactivity to GFP protein. All Rockland Immunochemical's RFP antibodies are affinitypurified to assure both high affinity and specificity. Rigorous quality control testing ensures that the finished product meets or exceeds out high standards for optimum performance in your assays.

Synonyms:

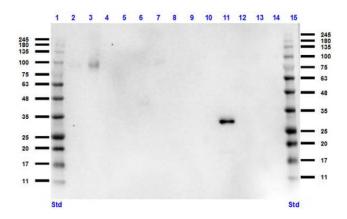
DsRed protein, rDsRed, Discosoma sp. Red Fluorescent Protein, Red fluorescent protein drFP583, sea anemone Discosoma sp. Mushroom, RFP antibody, RFP-RTU, Ready To Use Antibody, RTU Antibody

Note:

Ready-To-Use Anti-RFP is designed to detect RFP and its variants. Ready-To-Use Anti-RFP Rabbit Polyclonal Antibody has been optimized and tested in ELISA and in western blot using 1:1000 dilution. This Anti-RFP (RTU) Antibody is sufficient to run 10 western blots. Although not tested, this antibody is likely functional in immunohistochemistry, immunofluorescence, and immunoprecipitation. Optimal titers for these applications should be determined by the researcher.



## **Product images:**



Western Blot of Ready-to-Use Rabbit Anti-RFP Antibody. Lane 1: Opal Prestain Molecular Weight (p/n MB-210-0500). Lane 2: HeLa (p/n W09-000-364). Lane 3: HEK293 (p/n W09-000-365). Lane 4: Cho/K1 (p/n W07-000-359). Lane 5: MDA-MB-231 (p/n W09-001-GK6). Lane 6: A431 (p/n W09-000-361). Lane 7: Jurkat (p/n W09-001-370). Lane 8: NIH/3T3 (p/n W10-000-358). Lane 9: E. coli HCP (p/n 000-001-J08). Lane 10: FLAG (p/n W00-001-383). Lane 11: RFP (p/n 000-001-379). Lane 12: GFP (p/n 000-001-215). Lane 13: GST (p/n 000-001-200). Lane 14: MBP (p/n 000-001-385). Lane 15: Opal Prestain. Primary Antibody: RTU-RFP at 1µL/mL overnight at 4°C. Secondary Antibody: Goat anti-Rabbit HRP (p/n 611-103-122) at 1:70,000 for 30min at RT. Expect 27kDa seen in lane 11. Unspecific band in lane 3 caused by cross reactivity with secondary antibody.