

Product datasheet for **TA397405**

DsRed Antibody [Clone ID: RFP40]

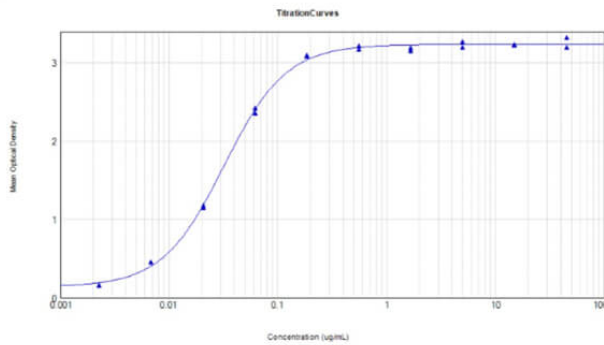
Product data:

Product Type:	Primary Antibodies
Clone Name:	RFP40
Applications:	ELISA, WB
Recommended Dilution:	WB: 1:1000 ELISA: 1:31,000
Reactivity:	RFP
Specificity:	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. Expect reactivity against RFP-labeled probes and proteins.
Formulation:	1X PBS, pH 7.4
Concentration:	1.0 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	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.
Stability:	Expiration date is one (1) year from date of receipt.
Database Link:	Q9U6Y8



[View online »](#)

- 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.
- Synonyms:** recombinant anti-RFP antibody, Red Fluorescent Protein antibody, DsRed, rDsRed, *Discosoma sp.* Red Fluorescent Protein, Red fluorescent protein drFP583
- 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.

Product images:

ELISA Results of purified recombinant Anti-RFP Single Domain Antibody reactive against RFP. The working dilution for clone RFP40 is 1:31,000. Each well was coated in duplicate with 1.0µg of RFP (p/n 000-001-379). The starting dilution of antibody was 45µg/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/PBS blocking buffer (p/n MB-066), Mouse Anti-FLAG Tag HRP conjugated Antibody (p/n 200-303-383) and TMB substrate (p/n TMBE-1000).