



Anti-RFP (RABBIT) Antibody Min X Hu Ms and Rt Serum Proteins - 600-401-379

Code: 600-401-379

Size: 100 µg

Product Description: Anti-RFP (RABBIT) Antibody Min X Hu Ms and Rt Serum Proteins - 600-401-379

Concentration: 1.0mg/ml by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	DsRed
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	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.
Synonyms	rabbit anti-RFP antibody, DsRed, rDsRed, Discosoma sp. Red Fluorescent Protein, Red fluorescent protein drFP583
Application Note	Polyclonal anti-RFP is designed to detect RFP and its variants. This antibody can be used to detect RFP by ELISA (sandwich or capture) for the direct binding of antigen. Biotin conjugated polyclonal 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 (code # S000-03). Fluorochrome conjugated polyclonal 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 polyclonal anti-RFP relative to the fluorescence of RFP alone. For immunoblotting use either alkaline phosphatase or peroxidase conjugated polyclonal anti-RFP to detect RFP or RFP containing proteins on western blots. Optimal titers for applications should be determined by the researcher.
Background	Antibodies to RFP (Discosoma spp.) are intended for use in immunological assays including ELISA, western blotting, immunofluorescence, and fluorescence activated cell sorting (FACS).
Purity And Specificity	This product 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.
Assay Dilutions	User Optimized
ELISA	1:20,000 - 1:50,000
Western Blot	1:1,000 - 1:5,000
Immunohistochemistry	1:200 - 1:2,000
IF Microscopy	1:200-1:2,000
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
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.
General Reference	Gross LA, Baird GS, Hoffman RC, Baldrige KK, Tsien RY: The structure of the chromophore within DsRed, a red fluorescent protein from coral. Proc. Natl. Acad. Sci. USA 2000, 97: 11990-11995.

Specific Reference

Takeda N, Jain R, Leboeuf MR, Padmanabhan A, Wang Q, Li L, Lu MM, Millar SE, Epstein JA.. (2013) Hopx expression defines a subset of multipotent hair follicle stem cells and a progenitor population primed to give rise to K6+ niche cells. Development. 2013 Apr;140(8):1655-64.

Ortega F, Gascón S, Masserdotti G, Deshpande A, Simon C, Fischer J, Dimou L, Chichung Lie D, Schroeder T, Berninger B. (2013) Oligodendroglial and neurogenic adult subependymal zone neural stem cells constitute distinct lineages and exhibit differential responsiveness to Wnt signalling. Nat Cell Biol. 2013 Jun;15(6):602-13. doi: 10.1038/ncb2736. Epub 2013 May 5.

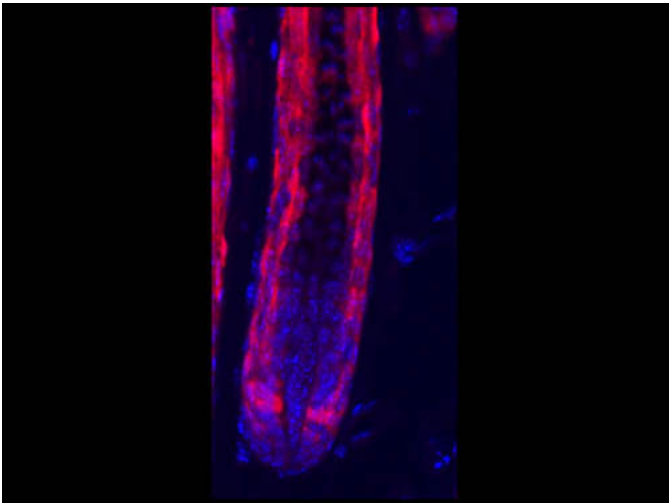
Tian X, Hu T, He L, Zhang H, Huang X, Poelmann RE, Liu W, Yang Z, Yan Y, Pu WT, Zhou B. (2013) Peritruncal coronary endothelial cells contribute to proximal coronary artery stems and their aortic orifices in the mouse heart. PLoS One. 2013 Nov 21;8(11):e80857. doi: 10.1371/journal.pone.0080857. eCollection 2013.

Related Products

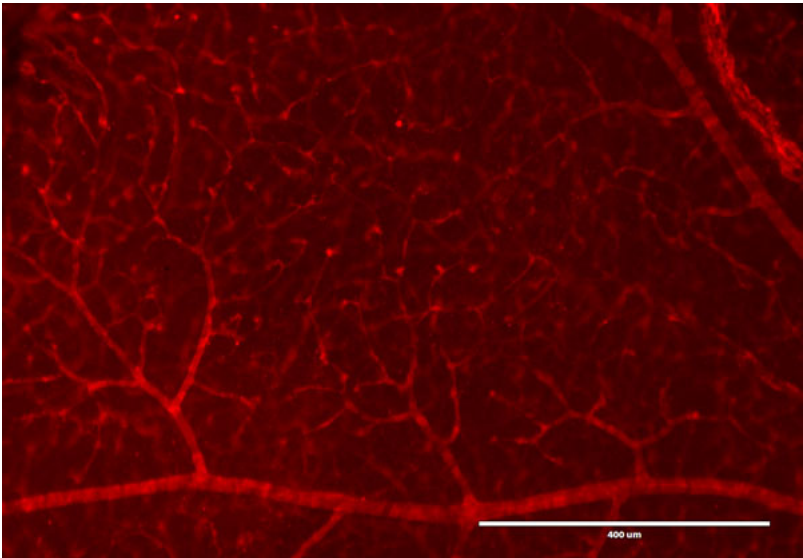
000-001-379	Recombinant Red Fluorescent Protein (RFP) Control - 000-001-379
200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
600-301-215	Anti-GFP Antibody (Mouse) Monoclonal Antibody - 600-301-215
600-401-215	Anti-GFP (RABBIT) Antibody - 600-401-215

Images

1 Immunofluorescence Microscopy of Rabbit Anti-RFP antibody. Tissue: HopERCre/+; R26Tom/+ mice. Fixation: 0.5% PFA. Antigen retrieval: Tamoxifen.Primary antibody: RFP antibody at 10 µg/mL for 1 h at RT.Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT.Localization: RFP is nuclear and occasionally cytoplasmic.Staining: Hop-derived cells in the hair follicle, labeled in red.

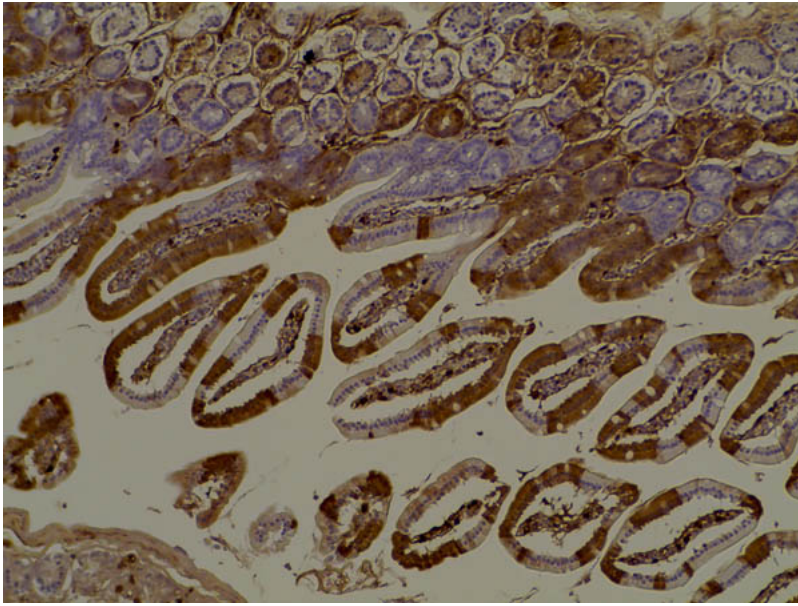


2 Immunofluorescence Microscopy of Rabbit Anti-RFP antibody. Tissue: DsRed transgenic mouse retina. Fixation: 4% PFA. Blocking: 3% BSA, 0.3% TritonPrimary antibody: RFP antibody at 1:100 for 12 h at 4°C.Secondary antibody: Alexa488 secondary antibody at 1:10,000 for 4 hours at RT.Localization: RFP is nuclear and occasionally cytoplasmic.Staining: labeled in red.



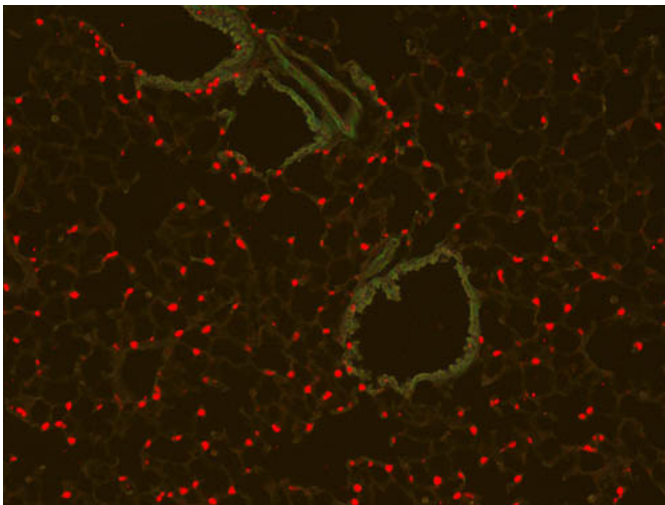
3

Immunohistochemistry of Anti-RFP Antibody. Tissue: Mouse gut tissue in tomato transgenic mice. Fixation: formalin fixed paraffin embedded. Antigen retrieval: heat 5 min at high temp in 1X rodent decloaker. Primary antibody: RFP antibody at 1:200 for 1 h 30 min at RT. Secondary Antibody: HRP anti-rabbit (p/n 611-103-122). Image courtesy: Kwan Hyun Kim.



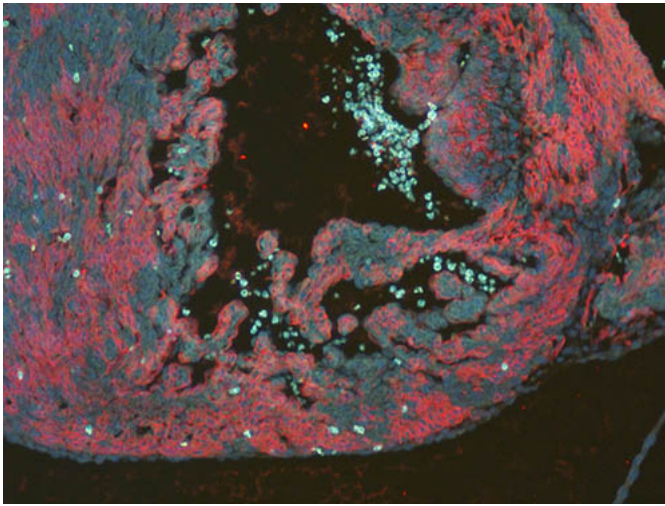
4

Immunofluorescence Microscopy of Rabbit Anti-RFP antibody. Tissue: (10X) Mouse lung tissue. Fixation: 4% PFA. Antigen retrieval: Heat. Primary antibody: Anti-RFP antibody at 1:50 for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:250 for 1 hr at RT. Staining: SPC+ cells are RFP positive in red.



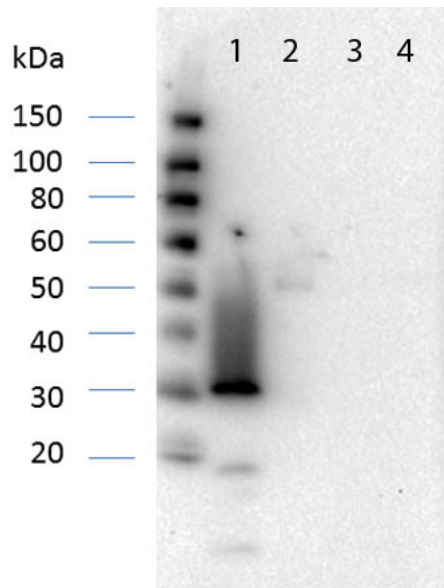
5

Immunofluorescence Microscopy of Rabbit Anti-RFP antibody. Tissue: (10X) Mouse E14.5 embryo heart tissue. Fixation: 4% PFA. Antigen retrieval: Heat. Primary antibody: Anti-RFP antibody at 1:50 for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:250 for 1 hr at RT. Staining: cardiac cells are RFP positive in red in tomato transgenic mice.



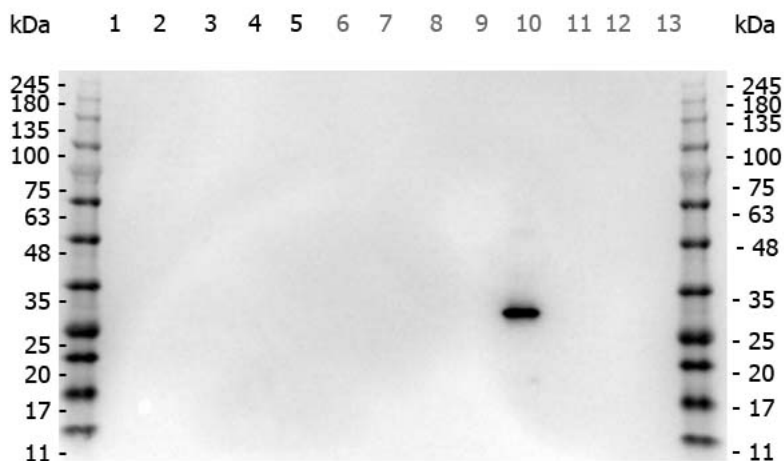
6

Western Blot of RFP Antibody Pre-Absorbed
Lane 1: RFPLane 2:
Human IgGLane 3: Goat IgGLane 4: Mouse IgG Load: 50ng per
lane.Primary antibody: RFP Antibody Pre-Absorbed at 1:1,000
overnight at 4°C.Secondary antibody: Peroxidase conjugated
rabbit secondary antibody at 1:40,000 for 30 min at RT.Block: MB-
070 Blocking Buffer for 30 min at RT.Predicted/Observed size: 27
kDa, 30 kDa



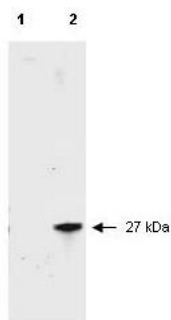
7

Western Blot of Rabbit anti-RFP antibody. Marker: Opal Pre-
stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n
W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363). Lane 3:
CHO/K1 Lysate (p/n W07-000-357). Lane 4: MDA-MB-231 (p/n
W09-001-GK6). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6:
Jurkat Lysate (p/n W09-001-370). Lane 7: NIH/3T3 Lysate (p/n
W10-000-358). Lane 8: E-coli HCP Control (p/n 000-001-J08). Lane
9: FLAG Positive Control Lysate (p/n W00-001-383). Lane 10: Red
Fluorescent Protein (p/n 000-001-379). Lane 11: Green
Fluorescent Protein (p/n 000-001-215). Lane 12: Glutathione-S-
Transferase Protein. Lane 13: Maltose Binding Protein (p/n 000-
001-385). Load: 10 µg of lysate or 50ng of purified protein per
lane. Primary antibody: RFP antibody at 1ug/mL overnight at
4°C. Secondary antibody: Peroxidase rabbit secondary antibody
(p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer:
1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 30
kDa for RFP.



8

Western blot of RFP recombinant protein detected with Rockland's polyclonal anti-RFP antibody. Lane 1 shows no reaction against a GFP recombinant protein present in 10 μ g of HeLa cell extract. Lane 2 shows a single band detected in 10 μ g of a HeLa lysate containing RFP recombinant protein as a 27 kDa band. A 4-12% Bis-Tris gradient gel (Invitrogen) was used for SDS-PAGE. The membrane was blocked and then probed with Anti-RFP diluted 1:2,500 for 1 h at RT followed by washes and reaction with a 1:5,000 dilution of IRDyeTM800 conjugated Goat-a-Rabbit IgG [H&L] MX (611-132-122). IRDyeTM800 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.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.