

# Product Datasheet

## RFP Antibody - BSA Free NBP1-69962

Unit Size: 100 ug

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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**NBP1-69962**

RFP Antibody - BSA Free

Product Information	
<b>Unit Size</b>	100 ug
<b>Concentration</b>	Please see the vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.01% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description	
<b>Description</b>	<p>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)</p> <p>Store vial at -20C prior to opening. Aliquot contents and freeze at -20C 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 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
<b>Host</b>	Rabbit
<b>Species</b>	Non-species specific
<b>Reactivity Notes</b>	No reaction was observed against Human, Mouse or Rat serum proteins
<b>Specificity/Sensitivity</b>	Expect reactivity against RFP and its variants: mCherry, tdTomato, mBanana, mOrange, mPlum, mOrange and mStrawberry. No reaction was observed against Human, Mouse or Rat serum proteins.
<b>Immunogen</b>	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.

Product Application Details	
<b>Applications</b>	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, CyTOF-ready
<b>Recommended Dilutions</b>	Western Blot 1:1000-1:5000, Flow Cytometry 1:200-1:2000, ELISA 1:28700-1:48700, Immunohistochemistry 1:200-1:2000, Immunocytochemistry/Immunofluorescence 1:200-1:2000, Immunoprecipitation, Immunohistochemistry-Paraffin, CyTOF-ready



**Application Notes**

This product is designed to detect RFP and its variants. This antibody has been tested by ELISA, western blot, IF, and IHC, and is suitable for use in IP, ICC, dual RNA-FISH, iDISCO+, IEM, and FLOW. 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. 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.

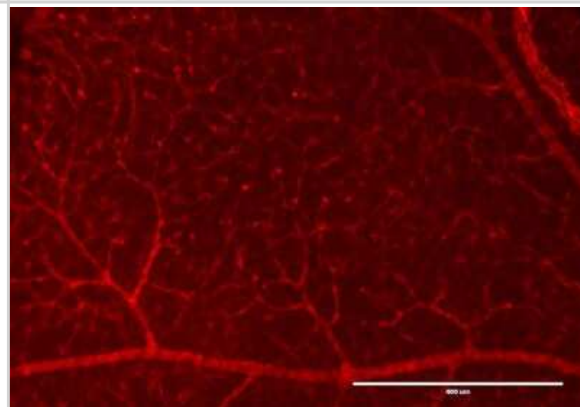
RFP Antibody validated for CyTOF-ready from a verified customer review.

**Images**

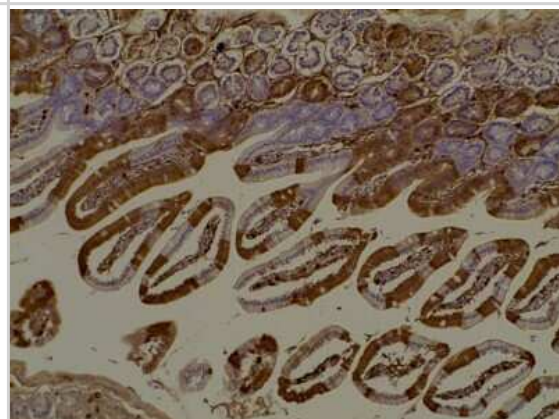
**Western Blot: RFP Antibody [NBP1-69962]** - Western blot of RFP recombinant protein detected with RFP antibody. Lane 1 shows no reaction against a GFP recombinant protein present in 10 ug of HeLa cell extract. Lane 2 shows a single band detected in 10 ug of a HeLa lysate containing RFP recombinant protein 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 IRDye(TM)800 conjugated Goat-a-Rabbit IgG [H&L] MX. IRDye(TM)800 fluorescence image was captured using the Odyssey(R) Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



**Immunocytochemistry/Immunofluorescence: RFP Antibody [NBP1-69962]** - Immunofluorescence Microscopy of 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.



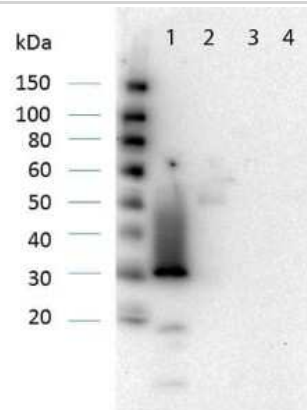
**Immunohistochemistry: RFP Antibody [NBP1-69962]** - Immunohistochemistry of RFP antibody. Tissue: Mouse gut tissue in tomato transgenic mice. Fixation: formalin fixed paraffin embedded. Antigen retrieval: heat 5 min at high temp in 1X rodent decloaker. Primary antibody: RFP antibody at 1:200 for 1 h 30 min at RT. Secondary Antibody: HRP anti-rabbit.



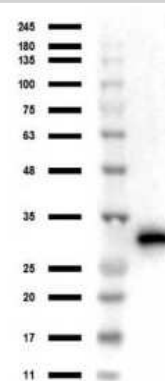
Western Blot: RFP Antibody [NBP1-69962] - RFP recombinant protein detected with polyclonal anti-RFP antibody. Lane 1 shows no reaction against a GFP recombinant protein present in 10 ug of HeLa cell extract. Lane 2 shows a single band detected in 10 ug of a HeLa lysate containing RFP recombinant protein as a 27 kDa band. A 4-12% Bis-Tris gradient gel 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 IRDye 800 conjugated Goat-a-Rabbit IgG [H&L] MX. IRDye 800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



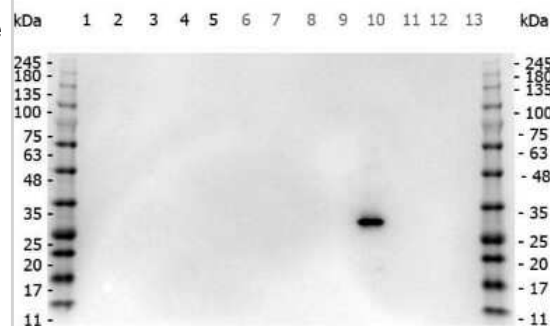
Western Blot: RFP Antibody [NBP1-69962] - Western Blot of RFP antibody. Lane 1: RFP. Lane 2: Human IgG. Lane 3: Goat IgG. Lane 4: Mouse IgG. Load: 50ng per lane. Primary antibody: RFP antibody at 1:1,000 overnight at 4C. Secondary antibody: Peroxidase conjugated rabbit secondary antibody at 1:40,000 for 30 min at RT. Block Blocking Buffer for 30 min at RT. Predicted/Observed size: 27 kDa, 30 kDa.



Western Blot: RFP Antibody [NBP1-69962] - Western Blot of RFP antibody. Lane 1: Opal Prestained Marker. Lane 2: 50ng of RFP. Primary Antibody: Anti-RFP at 1ug/mL overnight at 2-8C. Secondary Antibody: Goat anti-Rabbit HRP at 1:70,000 for 30mins at RT. Block: BlockOut Universal blocking buffer. Expect ~27kDa.

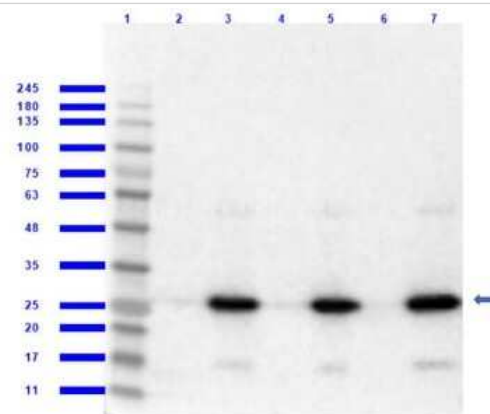


Western Blot: RFP Antibody [NBP1-69962] - Western Blot of RFP antibody. Marker: Opal Pre-stained ladder. Lane 1: HEK293 lysate. Lane 2: HeLa Lysate. Lane 3: CHO/K1 Lysate. Lane 4: MDA-MB-231. Lane 5: A431 Lysate. Lane 6: Jurkat Lysate. Lane 7: NIH/3T3 Lysate. Lane 8: E-coli HCP Control. Lane 9: FLAG Positive Control Lysate. Lane 10: Red Fluorescent Protein. Lane 11: Green Fluorescent Protein. Lane 12: Glutathione-S-Transferase Protein. Lane 13: Maltose Binding Protein. Load: 10 ug of lysate or 50ng of purified protein per lane. Primary antibody: RFP antibody at 1ug/mL overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody 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.

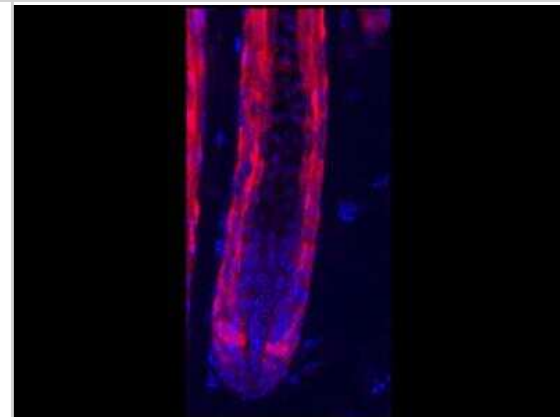




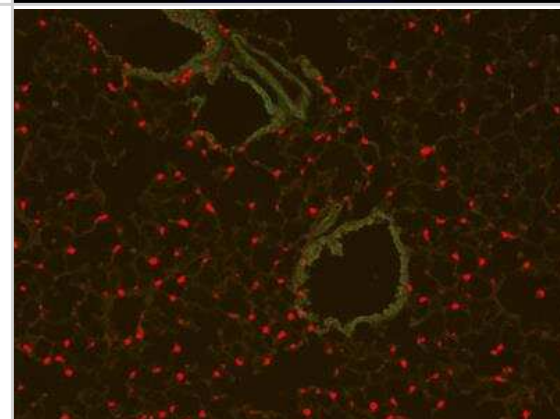
**Western Blot: RFP Antibody [NBP1-69962]** - Western Blot of RFP antibody. Lane 1: Opal Prestained Molecular Weight Marker. Lane 2: RFP/HEK293T WCL [0.05/10ug] [+]. Lane 3: HEK293T Whole Cell Lysate [-]. Lane 4: RFP/NIH/3T3 Whole Cell Lysate [0.05/10ug] [+]. Lane 5: NIH/3T3 Whole Cell Lysate [-]. Lane 6: RFP/PC-12 Whole Cell Lysate [0.05/10ug] [+]. Lane 7: PC-12 Whole Cell Lysate [-]. Primary Antibody: Anti-RFP at 1:1000 overnight at 2-8C. Secondary Antibody: Goat Anti-Rabbit IgG Peroxidase at 1:70,000 at RT for 30 mins. Predicted/Observed MW: ~27kDa. Exposure: 2 sec.



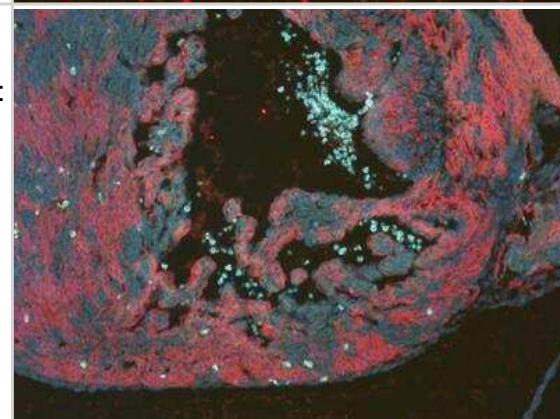
**Immunocytochemistry/Immunofluorescence: RFP Antibody [NBP1-69962]** - Rabbit Anti-RFP antibody. Tissue: HopERCre/+; R26Tom/+ mice. Fixation: 0.5% PFA. Antigen retrieval: Tamoxifen. Primary antibody: RFP antibody at 10 ug/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 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.



**Immunocytochemistry/Immunofluorescence: RFP Antibody [NBP1-69962]** - 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.



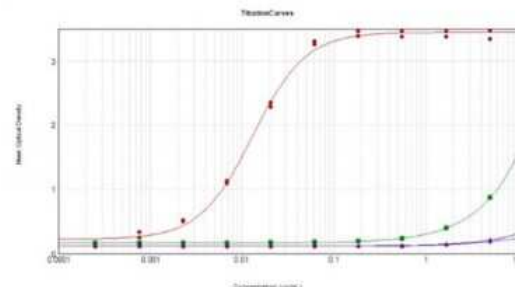
**Immunocytochemistry/Immunofluorescence: RFP Antibody [NBP1-69962]** - Rabbit Anti-RFP antibody. Tissue: (10X) Mouse E14.5 embryo heart tissue. Fixation: 4% PFA. Antigen retrieval: Heat. Primary antibody: Anti-RFP antibody at 1:50 for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:250 for 1 hr at RT. Staining: cardiac cells are RFP positive in red in tomato transgenic mice.



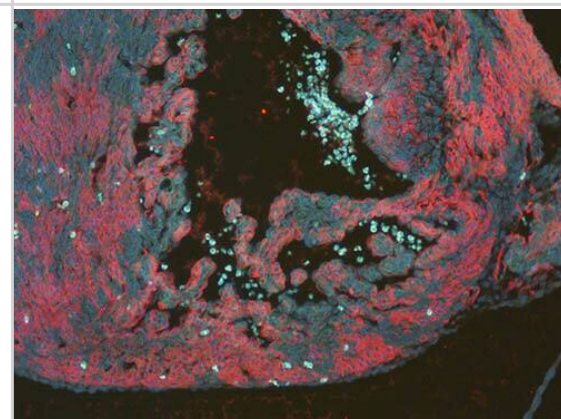
CyTOF-ready: RFP Antibody [NBP1-69962] - Analysis of RFP antibody on human tissue. RFP-expressing cells (red), nuclei (blue). Scale, 50  $\mu$ m. Image from verified customer review



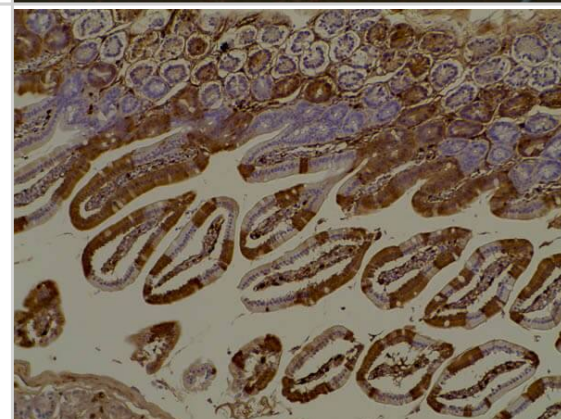
ELISA: RFP Antibody [NBP1-69962] - ELISA Results of RFP antibody tested against purified RFP protein. Each well was coated in duplicate with 1.0  $\mu$ g of RFP [red], Human IgG [green], Mouse IgG [blue], Rat IgG [purple]. The starting dilution of antibody was 5  $\mu$ g/mL and the X-axis represents 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 1% Fish Gel in PBS Blocking Buffer, Goat Anti-Rabbit IgG HRP conjugated and TMB substrate. Results show RFP titer >75,000, Human, Mouse, Rat IgG titers <100.



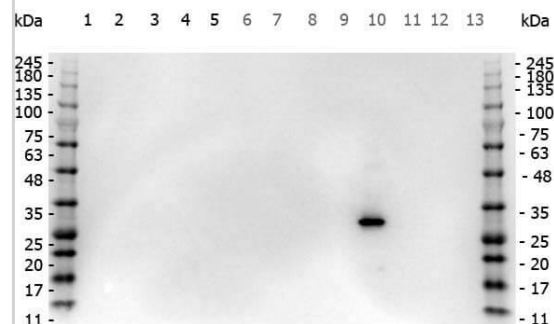
Immunofluorescence Microscopy of Rabbit RFP Antibody. Tissue: (10X) Mouse E14.5 embryo heart tissue. Fixation: 4% PFA. Antigen retrieval: Heat. Primary antibody: RFP Antibody at 1:50 for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:250 for 1 hr at RT. Staining: cardiac cells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



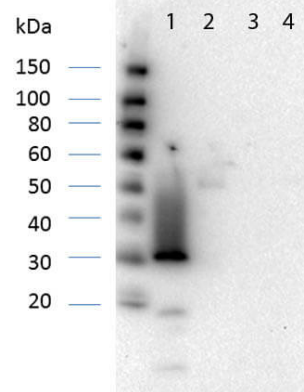
Immunohistochemistry of RFP Antibody. Tissue: Mouse gut tissue in tomato transgenic mice. Fixation: formalin fixed paraffin embedded. Antigen retrieval: heat 5 min at high temp in 1X rodent decloaker. Primary antibody: RFP antibody at 1:200 for 1 h 30 min at RT. Secondary Antibody: HRP anti-rabbit



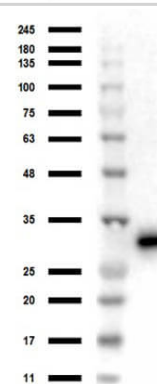
Western Blot of RFP Antibody antibody. Marker: Opal Pre-stained ladder



Western Blot of RFP Antibody Pre-Absorbed. Lane 1: RFP



Western Blot of RFP Antibody. Lane 1: Opal Prestained Marker



## Publications

Kicuntod J The cytomegalovirus nuclear egress complex: compositional and functional characterization leading to an antiviral targeting Thesis 2023-01-01

Radnaa E, Richardson L, Goldman B Et al. Stress signaler p38 mitogen-activated kinase activation: a cause for concern? Clin Sci (Lond) 2022-10-17 [PMID: 36250628] (CyTOF-ready)

Details:

Citation using the Azide and BSA Free version of this antibody.

Miller KE, Magliozzi JO, Picard NA, Moseley JB Sequestration of the exocytic SNARE Psy1 into multiprotein nodes reinforces polarized morphogenesis in fission yeast Mol Biol Cell 2021-08-04 [PMID: 34347508]

Kicuntod J, Alkhashrom S, HAge S et al. Properties of Oligomeric Interaction of the Cytomegalovirus Core Nuclear Egress Complex (NEC) and Its Sensitivity to an NEC Inhibitory Small Molecule Viruses 2021-03-11 [PMID: 33799898] (WB)



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### **Products Related to NBP1-69962**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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