For Research Use Only

pan-RFP Polyclonal antibody

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Catalog Number: pabr1

Basic Information

Catalog Number:
pabr1

Applications:
WB, IF, ELISA

Host/IsoType:
Rabbit / IgG

Conjugate:
Unconjugated

Type:
Primary Antibody

Class:
Polyclonal

RRID:
AB_3101915

Molecular Weight:
26kDa

Purification Method:
Antigen affinity purification

Description

Rabbit polyclonal antibody to pan-Red Fluorescent Protein

Specificity/Target

TagBFP, DsRed, mCherry, mRuby2, mScarlet, TagRFP, tdTomato, mKate2, mPlum

Recommended Dilution

Western blot: 1:1,000
IF: 1:400-1:800
ELISA: N/A

Background

Red fluorescent proteins (RFPs) is a collective term referring to a heterogenous group of red chromophore-carrying proteins, originating from various species and forming different protein lineages.
The original RFP (dsRed) is a 225 amino acid fluorescent protein (25.9 kDa) derived from Discosoma sp.. It emits red light with a peak wavelength of 593 nm upon excitation by green light (excitation peak at 558 nm).
When fused with other proteins, RFP serves as a versatile reporter protein e.g. for quantifying expression levels or facilitates visualization of subcellular localization through fluorescence microscopy.
PABR1 is a rabbit polyclonal antibody raised against a mixture of RFP and can detect a broad range of RFPs from different species. This antibody detects dsRed-derivatives from Discosoma sp., including mCherry, mRFP, tdTomato, mPlum.
PABR1 antibody also detects representatives of different FP lineages from Entacmaea sp., such as eqFP578-derivatives including TagRFP, TagBFP, mKate2, as well as eqFP611-derivatives including mRuby2. PABR1 also detects the red fluorescent protein mScarlet, engineered from a synthetic template.

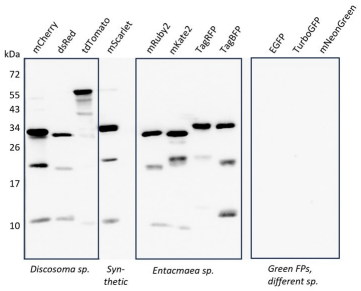
Storage

Storage:
Shipped on ice. Store at -20°C. Stable for 1 year after shipment.

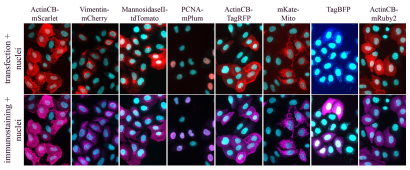
Storage Buffer:
PBS with 50% glycerol and 0.05% NaN3

For technical support and original validation data for this product please contact
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or E: proteintech@ptglab.com
1(312) 455-8498 (outside USA) W: www.ptglab.com

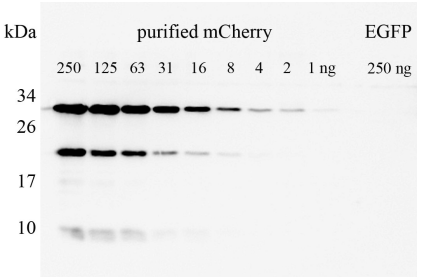
Selected Validation Data



Western blot detection of fluorescent proteins from different lineages. SDS-PAGE was performed with 20 ng of purified recombinant proteins per lane. Positive signal could be obtained with red fluorescent proteins from Discosoma dsRed lineage (mCherry, dsRed, tdTomato), with synthetic red fluorescent protein mScarlet, with fluorescent proteins from Entacmaea lineages (mRuby2, mKate2, TagRFP, TagBFP). Purified recombinant green fluorescent proteins EGFP, TurboGFP and mNeonGreen were used as negative controls. Pan-RFP (pabr1) antibody was applied at 1:1000 dilution o/n at +4°C. Secondary antibody: goat anti-rabbit HRP. Note: Red fluorescent proteins often demonstrate multiple bands on Western blots due to partial fragmentation. These bands correspond to differently truncated forms of red fluorescent proteins.



Immunostaining of HeLa cells, transiently transfected with different fluorescent proteins. Primary antibody: pan-RFP (pabr1) 1:800 for 1 h RT. Secondary: goat anti-rabbit. Upper row shows the innate signals from transfected fluorescent proteins, nuclei are in cyan. Lower row shows the signals from immunostainings with pan-RFP (pabr1) antibody, nuclei are in cyan. Pan-RFP (pabr1) can be used for IF detection of mScarlet, mCherry, tdTomato, mPlum, TagRFP, mKate TagBFP, mRuby2.



Western blot detection of purified mCherry red fluorescent protein down to 1-2 ng. A serial dilution of purified recombinant mCherry protein (250 ng - 1 ng) was subjected to SDS-PAGE. Purified recombinant EGFP (250 ng) was used as negative control (last lane). Pan-RFP (pabr1) antibody was applied at 1:1000 dilution o/n at +4°C. Secondary antibody: goat anti-rabbit HRP.