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Polyclonal Antibody to mCherry - Aff - Purified

Alternate names: Cherry Fluorescent Protein, Red Fluorescent Protein

Catalog No.: AP32117PU-S

Quantity: 0.6 mg

Concentration: 3.0 mg/ml

Background: mCherry is an engineered derivative of one of a family of proteins originally isolated from Cnidarians (jelly fish, sea anemones and corals). The prototype for these fluorescent proteins is Green Fluorescent Protein (GFP), which is a ~27kDa protein isolated originally from the jellyfish Aequoria victoria. GFP was the basis of the 2008 Nobel Prize in Chemistry, awarded to Osamu Shimomura, Martin Chalfie and Roger Tsien, specifically "for the discovery and development of the green fluorescent protein, GFP". On expression from the GFP gene, GFP protein will fold correctly and fluoresce strongly, the development of fluoresence requires no cofactors except molecular oxygen. It can therefore be expressed in fluorescent form in essentially any prokaryotic or eukaryotic cell under aerobic conditions. As a result DNA encoding GFP can be fused to DNA encoding other proteins as a means to visualize the resulting fusion protein in live cells or animals. Engineered forms of GFP and relatives have been developed to monitor Calcium levels, protease activation and in a variety of other processes in real time. A whole range of GFP derivatives with different spectral properties have been developed, largely in the Tsien lab. The mCherry protein was derived from DsRed, a red fluorescent protein from so-called disc corals of the genus Discosoma. DsRed is a 223 amino acid ~28kDa protein similar in size and properties to GFP, but, obviously, produces a red rather than a green fluorochrome.

Host / Isotype: Goat / IgG

Immunogen: Purified recombinant peptide produced in *E. coli.*

Format:
State: Liquid purified IgG fraction
Purification: Epitope Affinity Chromatography
Buffer System: PBS
Preservatives: 0.05% Sodium Azide
Stabilizers: 20% Glycerol

Applications:
Western blot: 1/500-1/2,000.
Immunofluorescence: 1/50-1/500.
Immunohistochemistry on Paraffin Sections: 1/50-1/500.
Immunohistochemistry on Frozen Sections: 1/50-1/500.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: In 293HEK cells transfected with cds plasmid detects a band of approximately 30 kDa by Western blot.
This mCherry antibody *Cat.-No* AP32117PU **does not** recognizes GFP (Green Fluorescent

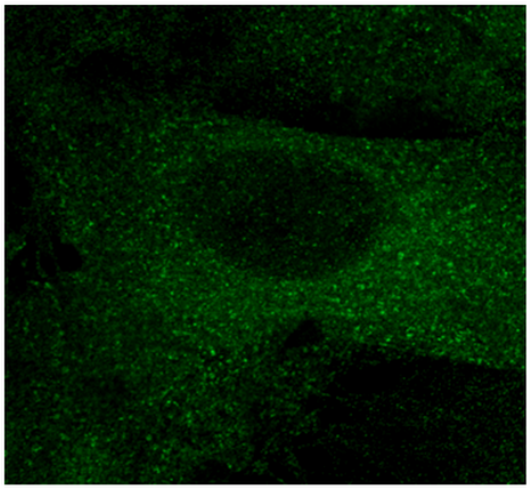
Protein).

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

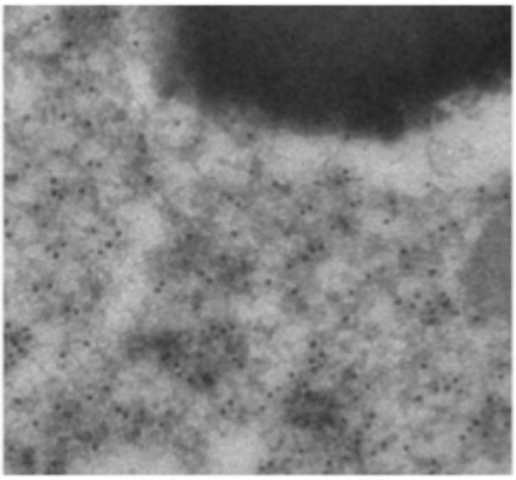
Product Citations: **Purchased from Acris:**
1. Toriyama, M;Toriyama, M;Wallingford, JB;Finnell, RH;2017Folate-dependent methylation of septins governs ciliogenesis during neural tube closure. FASEB J. 2017, PubMed PMID: 28432198

Pictures:

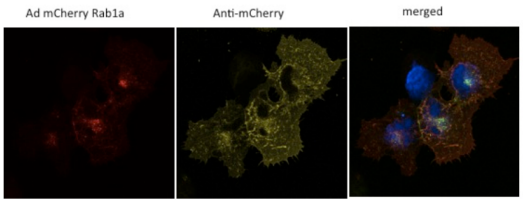
Immunofluorescence in COS-7 cells transfected with mCherry-EEA1 using mCherry Antibody Cat.-No AP32117PU at 1/1000 dilution, cells were fixed with 4% of PFA.



Immunogold labeling of RPE, *in vivo* injected with mCherry expressing vector.



293 HEK cells transduced with Ad mCherry Rab1a and stained with mCherry Antibody Cat.-No AP32117PU.



Western Blot analysis using mCherry Antibody Cat.-No AP32117PU at 1/1000 dilution, 293 cells transfected with myc-mCherry, Lysates at 100 µg/Lane. Rabbit anti Goat IgG -HRP at 1/10,000 dilution. *CEDOC/FCM - NOVA University of Lisabon, Portugal.*