Anti-mCherry Antibody

HA500049

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Species independent
Applications:	WB, ELISA, IF-Cell

Description: mCherry is a member of the mFruits family of monomeric red fluorescent proteins (mRFPs). As a RFP, mCherry was derived from DsRed of Discosoma sea anemones unlike green fluorescent proteins (GFPs) which are often derived from Aequoera victoria jellyfish.Fluorescent proteins are used to tag components in the cell, so they can be studied using fluorescence spectroscopy and fluorescence microscopy. mCherry absorbs light between 540-590 nm and emits light in the range of 550-650 nm. mCherry belongs to the group of fluorescent protein chromophores used as instruments to visualize genes and analyze their functions in experiments. Genome editing has been improved greatly through the precise insertion of these fluorescent protein tags into the genetic material of many diverse organisms. Most comparisons between the brightness and photostability of different fluorescent proteins have been made in vitro, removed from biological variables that affect protein performance in cells or organisms. It is hard to perfectly simulate cellular environments in vitro, and the difference in environment could have an effect on the brightness and photostability. This product recognizes tdTomato.

Immunogen: Recombinant protein within mCherry 1-236aa.

Positive control: Recombinant mCherry protein lysates.

Database links: SwissProt: X5DSL3 AnaplasmaMarginale

Recommended Dilutions:

WB	1:5,000
ELISA	1:1,000-1:5,000
IF-Cell	1:10,000

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

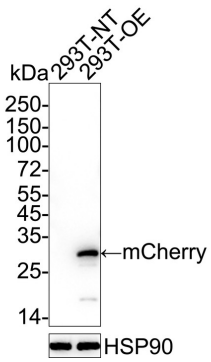

Fig1: Western blot analysis of mCherry on different lysates with Rabbit anti-mCherry antibody (HA500049) at 1/5,000 dilution.

Lane 1: 293T transfected with empty control cell lysate
Lane 2: 293T transfected with mCherry cell lysate

Lysates/proteins at 5 µg/Lane.

Exposure time: 4 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500049) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

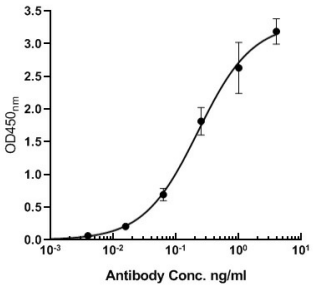

Fig2: ELISA analysis of with anti-mCherry antibody. Antigen (1 µg/mL). The antigen was used as the coating antigen, and the anti-mCherry antibody was used as the capture antigen for ELISA.

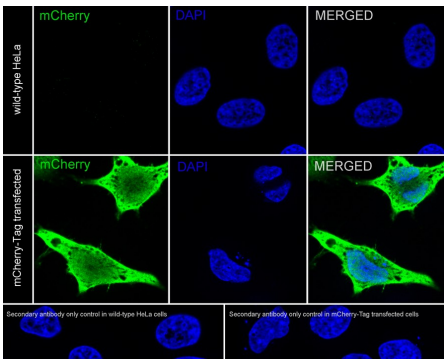

Fig3: Immunocytochemistry analysis of HeLa cells transfected with or without mCherry labeling mCherry with Rabbit anti-mCherry antibody (HA500049) at 1/10,000 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-mCherry antibody (HA500049) at 1/10,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Background References

1. Shaner, Nathan C,.et al. Improved monomeric red, orange and yellow fluorescent proteins derived from Discosoma sp. red fluorescent protein. Nature Biotechnology. 22 (12): 1567–1572.
2. Shu, Xiaokun,. et al. Novel Chromophores and Buried Charges Control Color in mFruits†,‡. Biochemistry. 45 (32): 9639–9647.