SANTA CRUZ BIOTECHNOLOGY, INC.

DsRed (E-8): sc-390909

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Plasmid vectors for the expression of coding regions of eukaryotic genes in bacterial, insect and mammalian hosts are in common usage; such expression vectors are frequently used to encode hybrid fusion proteins consisting of a eukaryotic target protein and a specialized region designed for fluorescent visualization of the fusion protein. DsRed is a red fluorescent protein cloned by homology to green fluorescent protein (GFP) from *Discosoma* coral. DsRed exhibits excellent resistance to pH extremes and photobleaching and causes a strong red-shift from 558 nm to 583 nm once matured. Immature DsRed shows GFP-like excitation and emission maxima. The contrast created through GFP and DsRed spectral shifts allows for a powerful dual reporter system.

REFERENCES

1. Wall, M.A., et al. 2000. The structural basis for red fluorescence in the tetrameric GFP homolog DsRed. Nat. Struct. Biol. 7: 1133-1138.
2. Baird, G.S., et al. 2000. Biochemistry, mutagenesis, and oligomerization of DsRed, a red fluorescent protein from coral. Proc. Natl. Acad. Sci. USA 22: 11984-11989.

SOURCE

DsRed (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 178-223 at the C-terminus of DsRed of *Discosoma Sp.* origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DsRed (E-8) is available conjugated to agarose (sc-390909 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390909 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390909 PE), fluorescein (sc-390909 FITC), Alexa Fluor® 488 (sc-390909 AF488), Alexa Fluor® 546 (sc-390909 AF546), Alexa Fluor® 594 (sc-390909 AF594) or Alexa Fluor® 647 (sc-390909 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390909 AF680) or Alexa Fluor® 790 (sc-390909 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390909 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

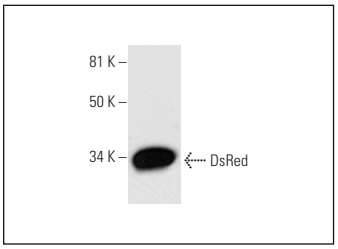
DsRed (E-8) is recommended for detection of proteins containing the DsRed tag by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of DsRed: 28 kDa.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



DsRed (E-8): sc-390909. Western blot analysis of purified recombinant DsRed.

SELECT PRODUCT CITATIONS

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3. Xie, W., et al. 2019. Clinical significance of LOXL4 expression and features of LOXL4-associated protein-protein interaction network in esophageal squamous cell carcinoma. Amino Acids 51: 813-828.
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5. Li, Y., et al. 2019. Reversion of tumor hepatocytes to normal hepatocytes during liver tumor regression in an oncogene-expressing transgenic zebrafish model. Dis. Model. Mech. 12: dmm039578.
6. Chowdhury, S., et al. 2019. Dissociating orexin-dependent and -independent functions of orexin neurons using novel orexin-flp knock-in mice. Elife 8: e44927.
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8. Yuan, T., et al. 2020. Temporospatial expression of Fgfr1 and 2 during lung development, homeostasis, and regeneration. Front. Pharmacol. 11: 120.
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10. Das, S., et al. 2020. Genome-scale screening of deubiquitinase subfamily identifies USP3 as a stabilizer of Cdc25A regulating cell cycle in cancer. Cell Death Differ. 27: 3004-3020.
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RESEARCH USE

For research use only, not for use in diagnostic procedures.