

DsRed2 (25): sc-101526

BACKGROUND

Plasmid vectors for the expression of coding regions of eukaryotic genes in bacterial, insect and mammalian hosts are of 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. Common fluorescent tags include green fluorescent protein (GFP) and red fluorescent protein 2 (DsRed2), a variant of DsRed. DsRed2 exhibits high signal to noise ratio and distinct spectral properties, making it a useful fusion tag for various proteins.

REFERENCES

1. Wall, M., 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* 97: 11984-11989.
3. Rodrigues, F., et al. 2001. Red fluorescent protein (DsRed) as a reporter in *Saccharomyces cerevisiae*. *J. Bacteriol.* 183: 3791-3794.

SOURCE

DsRed2 (25) is a mouse monoclonal antibody raised against a recombinant fragment corresponding to amino acids 21-245 of DsRed2 protein.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DsRed2 (25) is available conjugated to agarose (sc-101526 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101526 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101526 PE), fluorescein (sc-101526 FITC), Alexa Fluor® 488 (sc-101526 AF488), Alexa Fluor® 546 (sc-101526 AF546), Alexa Fluor® 594 (sc-101526 AF594) or Alexa Fluor® 647 (sc-101526 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101526 AF680) or Alexa Fluor® 790 (sc-101526 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

DsRed2 (25) is recommended for detection of DsRed2 by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of DsRed2: 25 kDa.

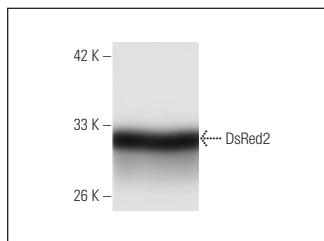
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

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

DATA



DsRed2 (25): sc-101526. Western blot analysis of recombinant RFP protein.

SELECT PRODUCT CITATIONS

1. Kundumani-Sridharan, V., et al. 2012. Novel interactions between NFATc1 (nuclear factor of activated T cells c1) and STAT-3 (signal transducer and activator of transcription-3) mediate G protein-coupled receptor agonist, thrombin-induced biphasic expression of cyclin D1, with first phase influencing cell migration and second phase directing cell proliferation. *J. Biol. Chem.* 287: 22463-22482.
2. Fernández, I.V., et al. 2014. Development of a novel protocol for generating flavivirus reporter particles. *J. Virol. Methods* 208: 96-101.
3. Li, S., et al. 2015. Thioredoxin 2 is a novel E2-interacting protein that inhibits the replication of classical swine fever virus. *J. Virol.* 89: 8510-8524.
4. Hockman, D., et al. 2017. Evolution of the hypoxia-sensitive cells involved in amniote respiratory reflexes. *Elife* 6: e21231.
5. Zhou, H., et al. 2018. *In vivo* simultaneous transcriptional activation of multiple genes in the brain using CRISPR-dCas9-activator transgenic mice. *Nat. Neurosci.* 21: 440-446.
6. He, J., et al. 2019. Mammalian target of rapamycin complex 1 signaling is required for the dedifferentiation from biliary cell to bipotential progenitor cell in zebrafish liver regeneration. *Hepatology* 70: 2092-2106.
7. Hänsch, S., et al. 2020. *Chlamydia*-induced curvature of the host-cell plasma membrane is required for infection. *Proc. Natl. Acad. Sci. USA* 117: 2634-2644.
8. Guo, J., et al. 2020. Transient receptor potential canonical 5-scramblase signaling complex mediates neuronal phosphatidylserine externalization and apoptosis. *Cells* 9: 547.
9. Levene, R.E., et al. 2021. The influenza A virus host shutoff factor PA-X is rapidly turned over in a strain-specific manner. *J. Virol.* 95: e02312-20.
10. Chen, J., et al. 2021. Acute brain vascular regeneration occurs via lymphatic transdifferentiation. *Dev. Cell.* E-published.

RESEARCH USE

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