

anti-Cy5 (B-2): sc-166896

BACKGROUND

Cyanine is a non-systematic name of a synthetic dye family belonging to the polymethine group. The family of cyanine dyes include Cy2, Cy3, Cy5, Cy7 and their derivatives, which the numbers are based on the partially saturated indole nitrogen heterocyclic nucleus with two aromatic units being connected via a polyalkene bridge of varying carbon number. Cyanines have many uses as fluorescent dyes, particularly in biomedical imaging. Depending on the structure, they cover the spectrum from infrared to ultraviolet. Cyanines are utilized to increase the sensitivity range of photographic emulsions, such as increasing the range of wavelengths which will form an image on film. Cyanines are mostly green or light blue in color, and are chemically unstable. Anti-Cyanine may be immobilized and used to bind the cyanine dyes in a linker system. A linker system is provided where a small molecule reactive group, e.g., an activity based probe which binds to certain enzymes at the active site, is linked through an aryl diazo linker to an affinity molecule.

REFERENCES

- Lee, H., et al. 2008. Fluorescence lifetime properties of near-infrared cyanine dyes in relation to their structures. *J. Photochem. Photobiol. A Chem.* 200: 438-444.
- Wang, Y. and Kobayashi, T. 2010. Electronic and vibrational coherence dynamics in a cyanine dye studied using a few-cycle pulsed laser. *Chemphyschem* 11: 889-896.
- Mahmood, T., et al. 2010. Synthesis and spectroscopic and DNA-binding properties of fluorogenic acridine-containing cyanine dyes. *J. Org. Chem.* 75: 204-207.
- Heier, J., et al. 2010. Fast assembly of cyanine dyes into aggregates onto [6,6]-phenyl C₆₁-butyric acid methyl ester surfaces from organic solvents. *Langmuir* 26: 3955-3961.

SOURCE

anti-Cy5 (B-2) is a mouse monoclonal antibody specific for the detection of Cy5 dye.

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.

anti-Cy5 (B-2) is available conjugated to agarose (sc-166896 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166896 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166896 PE), fluorescein (sc-166896 FITC), Alexa Fluor[®] 488 (sc-166896 AF488), Alexa Fluor[®] 546 (sc-166896 AF546), Alexa Fluor[®] 594 (sc-166896 AF594) or Alexa Fluor[®] 647 (sc-166896 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166896 AF680) or Alexa Fluor[®] 790 (sc-166896 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

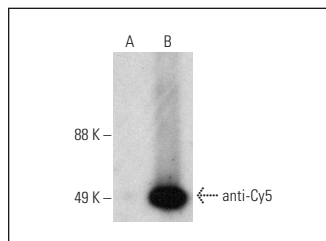
APPLICATIONS

anti-Cy5 (B-2) is recommended for detection of Cy5 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).

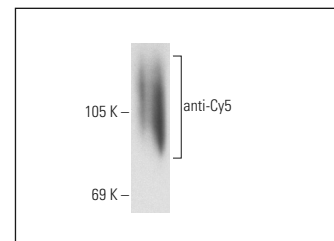
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



anti-Cy5 (B-2) HRP: sc-166896 HRP. Direct western blot analysis of anti-Cy5 against Phycoerythrin(PE) (A) and PE-Cy5 tandem (B) in reducing conditions.



anti-Cy5 (B-2): sc-166896. Western blot analysis of Cy5 in Cy5-conjugated BSA.

SELECT PRODUCT CITATIONS

- Booth, J.L., et al. 2016. *Bacillus anthracis* spore movement does not require a carrier cell and is not affected by lethal toxin in human lung models. *Microbes Infect.* 18: 615-626.
- Jiang, X., et al. 2019. Visualization of ceramide-associated proteins in ceramide-rich platforms using a cross-linkable ceramide analog and proximity ligation assays with anti-ceramide antibody. *Front. Cell Dev. Biol.* 7: 166.
- Tripathi, P., et al. 2021. Palmitoylation of acetylated Tubulin and association with ceramide-rich platforms is critical for ciliogenesis. *J. Lipid Res.* 62: 100021.
- Dodantenna, N., et al. 2022. African swine fever virus EP364R and C129R target cyclic GMP-AMP to inhibit the cGAS-STING signaling pathway. *J Virol.* 96: e0102222.

RESEARCH USE

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