

V5-Probe (H-9): sc-271926

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 to aid in the purification and visualization of the target protein. An example is the V5-Probe which recognizes a small epitope, termed Pk, on the P/V proteins of the paramyxovirus simian virus 5 (SV5). This small peptide has proven useful in visualization and immunoaffinity purification of expressed fusion proteins. More than 20 recombinant proteins, some of which include transmembrane and secreted proteins, have been tagged with this epitope and detected via western blot, immunoprecipitation and immunofluorescence.

SOURCE

V5-Probe (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 87-111 within a C-terminal sequence of the P and V proteins of simian virus 5 origin.

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.

V5-Probe (H-9) is available conjugated to agarose (sc-271926 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271926 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271926 PE), fluorescein (sc-271926 FITC), Alexa Fluor® 488 (sc-271926 AF488), Alexa Fluor® 546 (sc-271926 AF546), Alexa Fluor® 594 (sc-271926 AF594) or Alexa Fluor® 647 (sc-271926 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271926 AF680) or Alexa Fluor® 790 (sc-271926 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

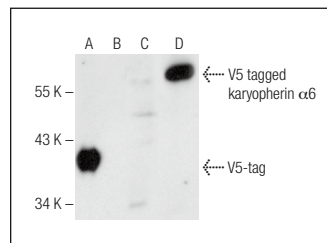
V5-Probe (H-9) is recommended for detection of V5 fusion proteins by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: karyopherin α6 (h): 293T Lysate: sc-173792.

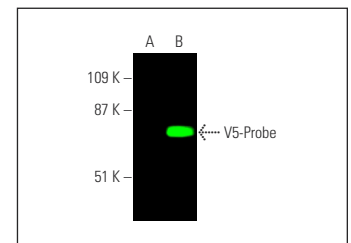
RECOMMENDED SUPPORT REAGENTS

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



V5-Probe (H-9): sc-271926. Western blot analysis of V5-tagged fusion protein (A), non-tagged fusion protein (B), in non-transfected: sc-117752 (C) and V5-tagged human karyopherin α6 transfected: sc-173792 (D) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



V5-Probe (H-9): sc-271926. Near-infrared western blot analysis of V5-Probe expression in non-transfected: sc-117752 (A) and human karyopherin α6 transfected: sc-173792 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

- Kim, Y.R., et al. 2016. Peptide inhibition of p22^{phox} and Rubicon interaction as a therapeutic strategy for septic shock. *Biomaterials* 101: 47-59.
- Miao, Y., et al. 2017. Collaboration between distinct Rab small GTPase trafficking circuits mediates bacterial clearance from the bladder epithelium. *Cell Host Microbe* 22: 330-342.e4.
- Kim, Y.R., et al. 2018. *Toxoplasma gondii* GRA8 induces ATP5A1-SIRT3-mediated mitochondrial metabolic resuscitation: a potential therapy for sepsis. *Exp. Mol. Med.* 50: e464.
- Kim, Y.R., et al. 2020. Identification of highly potent and selective inhibitor, TIPTP, of the p22^{phox}-Rubicon axis as a therapeutic agent for rheumatoid arthritis. *Sci. Rep.* 10: 4570.
- Liu, X., et al. 2021. Herpesvirus-mediated stabilization of ICP0 expression neutralizes restriction by TRIM23. *Proc. Natl. Acad. Sci. USA* 118: e2113060118.
- Chen, S., et al. 2022. Loss of SPTBN1 suppresses autophagy via SETD7-mediated YAP methylation in hepatocellular carcinoma initiation and development. *Cell. Mol. Gastroenterol. Hepatol.* 13: 949-973.e7.

RESEARCH USE

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