SANTA CRUZ BIOTECHNOLOGY, INC.

V5-Probe (G-14): sc-83849

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 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.

REFERENCES

1. Maniattis, T., et al. 1982. Molecular cloning—A laboratory manual. Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press.
2. Duplay, P., et al. 1984. Sequences of the malE gene and of its product, the maltose-binding protein of *Escherichia coli* K12. J. Biol. Chem. 259: 10606-10613.
3. Smith, D.B. and Johnson, K.S. 1988. Single-step purification of polypeptides expressed in *Escherichia coli* as fusions with glutathione S-transferase. Gene 67: 31-40.

SOURCE

V5-Probe (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of proteins P and V of Simian Virus 5 origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83849 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

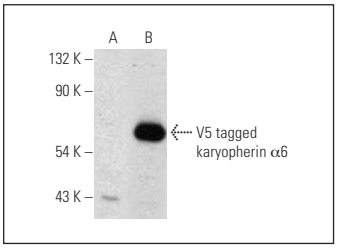
APPLICATIONS

V5-Probe (G-14) is recommended for detection of V5 fusion proteins by Western Blotting (starting dilution 1:200, 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 SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



V5-Probe (G-14): sc-83849. Western blot analysis of V5-tagged fusion protein in non-transfected: sc-117752 (**A**) and V5-tagged human karyopherin α6 transfected: sc-173792 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, C., et al. 2012. A newly identified TSHβ splice variant is involved in the pathology of Hashimoto's thyroiditis. Mol. Biol. Rep. 39: 10019-10030.
2. Marazita, M.C., et al. 2012. CDK2 and PKA mediated-sequential phosphorylation is critical for p19^{INK4d} function in the DNA damage response. PLoS ONE 7: e35638.
3. Park-York, M., et al. 2013. PKCθ expression in the amygdala regulates Insulin signaling, food intake and body weight. Obesity 21: 755-764.
4. Park-York, M., et al. 2013. PKCθ over expression in the central nucleus of the amygdala or hypothalamus has differential effects on energy balance and peripheral glucose homeostasis. Brain Res. 1498: 85-94.
5. Lee, C.M. 2014. Transport of c-Myc by Kinesin-1 for proteasomal degradation in the cytoplasm. Biochim. Biophys. Acta 1843: 2027-36.
6. Yang, C.S., et al. 2015. Small heterodimer partner interacts with NLRP3 and negatively regulates activation of the NLRP3 inflammasome. Nat. Commun. 6: 6115.

MONOS Satisfaction Guaranteed

Try **V5-Probe (H-9): sc-271926** or **V5-Probe (C-9): sc-271944**, our highly recommended monoclonal alternatives to V5-Probe (G-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **V5-Probe (H-9): sc-271926**.