

His-probe (AD1.1.10): sc-53073

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 an eukaryotic target protein and a specialized region designed to aid in the purification and visualization of the target protein. A system that has proven to be very successful relies on the insertion of a six histidine (His6) sequence in the N-terminus of the encoded protein, allowing for efficient coupling to Ni²⁺-chelating resins and purification by single step affinity chromatography. This polyhistidine sequence can then be removed by specific cleavage at sites recognized by enzymes such as thrombin or enterokinase, permitting the separation of the target protein from the polyhistidine tag. Visualization of such fusion proteins can be achieved by utilizing antibodies generated against specific peptide sequences downstream from the multiple cloning site.

SOURCE

His-probe (AD1.1.10) is a mouse monoclonal antibody raised against a 6x His-tagged polypeptide.

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.

His-probe (AD1.1.10) is available conjugated to agarose (sc-53073 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53073 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53073 PE), fluorescein (sc-53073 FITC), Alexa Fluor[®] 488 (sc-53073 AF488), Alexa Fluor[®] 546 (sc-53073 AF546), Alexa Fluor[®] 594 (sc-53073 AF594) or Alexa Fluor[®] 647 (sc-53073 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53073 AF680) or Alexa Fluor[®] 790 (sc-53073 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

His-probe (AD1.1.10) is recommended for detection of fusion proteins encoded by polyhistidine expression vectors 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

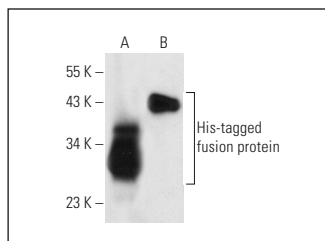
RECOMMENDED SUPPORT REAGENTS

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.

STORAGE

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

DATA



His-probe (AD1.1.10): sc-53073. Western blot analysis of His-tagged fusion proteins (A, B).

SELECT PRODUCT CITATIONS

- Zhang, X., et al. 2008. Histone deacetylase-related protein inhibits AES-mediated neuronal cell death by direct interaction. *J. Neurosci. Res.* 86: 2423-2431.
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- Chae, Y.C., et al. 2014. Inhibition of FoxO1 acetylation by INHAT subunit SET/TAF- β induces p21 transcription. *FEBS Lett.* 588: 2867-2873.
- Herschhorn, A., et al. 2014. A broad HIV-1 inhibitor blocks envelope glycoprotein transitions critical for entry. *Nat. Chem. Biol.* 10: 845-852.
- Zhang, S., et al. 2015. PCAF-mediated Akt1 acetylation enhances the proliferation of human glioblastoma cells. *Tumour Biol.* 36: 1455-1462.
- Xie, Z., et al. 2015. MMSET regulates expression of IRF4 in t(4;14) myeloma and its silencing potentiates the effect of bortezomib. *Leukemia* 29: 2347-2354.
- Unterweger, D., et al. 2015. Chimeric adaptor proteins translocate diverse type VI secretion system effectors in *Vibrio cholerae*. *EMBO J.* 34: 2198-2210.
- Woo Park, J., et al. 2015. RE-IIBP methylates H3K79 and induces MEIS1-mediated apoptosis via H2BK120 ubiquitination by RNF20. *Sci. Rep.* 5: 12485.
- Naneh, O., et al. 2015. An optimized protocol for expression and purification of murine perforin in insect cells. *J. Immunol. Methods* 426: 19-28.
- Avila, E.E., et al. 2016. An *Entamoeba histolytica* ADP-ribosyl transferase from the diphtheria toxin family modifies the bacterial elongation factor Tu. *Mol. Biochem. Parasitol.* 207: 68-74.

RESEARCH USE

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