SANTA CRUZ BIOTECHNOLOGY, INC.

Headpin (B-5): sc-393882

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Headpin (hurpin, serpinB13) is a skin-specific, UV-repressible serine proteinase inhibitor (serpin) belonging to the ovalbumin serpin family. Headpin is abundant in the human keratinocyte cell line HaCaT, and in lesional keratinocytes from psoriatic skin. Headpin downregulation occurs in squamous cell carcinoma of the oral cavity and in squamous cell carcinoma cell lines of the head and neck.

REFERENCES

1. Abts, H.F., Welss, T., Mirmohammadsadegh, A., Kohrer, K., Michel, G. and Ruzicka, T. 1999. Cloning and characterization of hurpin (protease inhibitor 13): a new skin-specific, UV-repressible serine proteinase inhibitor of the ovalbumin Serpin family. J. Mol. Biol. 293: 29-39.
2. Spring, P., Nakashima, T., Frederick, M., Henderson, Y. and Clayman, G. 1999. Identification and cDNA cloning of Headpin, a novel differentially expressed Serpin that maps to chromosome 18q. Biochem. Biophys. Res. Commun. 264: 299-304.
3. Nakashima, T., Pak, S.C., Silverman, G.A., Spring, P.M., Frederick, M.J. and Clayman, G.L. 2000. Genomic cloning, mapping, structure and promoter analysis of Headpin, a Serpin which is down-regulated in head and neck cancer cells. Biochim. Biophys. Acta 1492: 441-446.
4. Jayakumar, A., Kang, Y., Frederick, M.J., Pak, S.C., Henderson, Y., Holton, P.R., Mitsudo, K., Silverman, G.A., EL-Naggar, A.K., Bromme, D. and Clayman, G.L. 2003. Inhibition of the cysteine proteinases cathepsins K and L by the Serpin Headpin (SerpinB13): a kinetic analysis. Arch. Biochem. Biophys. 409: 367-374.
5. LocusLink Report (LocusID: 5275). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: SERPINB13 (human) mapping to 18q21.33; Serpinb13 (mouse) mapping to 1 E2.1.

SOURCE

Headpin (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 260-287 within an internal region of Headpin of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393882 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Headpin (B-5) is recommended for detection of Headpin of mouse, rat and human origin 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).

Suitable for use as control antibody for Headpin siRNA (h): sc-106889, Headpin siRNA (m): sc-145919, Headpin shRNA Plasmid (h): sc-106889-SH, Headpin shRNA Plasmid (m): sc-145919-SH, Headpin shRNA (h) Lentiviral Particles: sc-106889-V and Headpin shRNA (m) Lentiviral Particles: sc-145919-V.

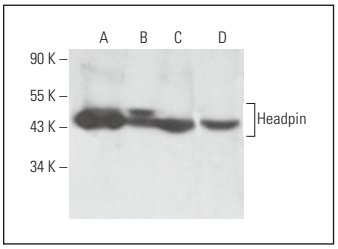
Molecular Weight of Headpin: 44 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, WI-38 whole cell lysate: sc-364260 or mouse skin extract: sc-364251.

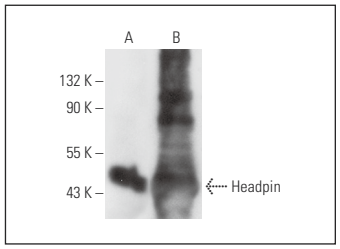
RECOMMENDED SUPPORT REAGENTS

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



Headpin (B-5): sc-393882. Western blot analysis of Headpin expression in HeLa (**A**), A375 (**B**), WI-38 (**C**) and A2058 (**D**) whole cell lysates.



Headpin (B-5): sc-393882. Western blot analysis of Headpin expression in HeLa whole cell lysate (**A**) and mouse skin tissue extract (**B**).

RESEARCH USE

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

PROTOCOLS

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