SANTA CRUZ BIOTECHNOLOGY, INC.

# Anamorsin siRNA (h): sc-60168

## BACKGROUND

The name of the protein Anamorsin, also designated cytokine-induced apoptosis inhibitor 1 (CIAPIN1), comes from the Latin term "ana-mors-in", meaning "anti-death molecule". During hematopoiesis, Anamorsin is crucial for mediating the anti-apoptotic effects of various cytokines. It is a ubiquitously expressed protein, and when it is overexpressed, it confers apoptotic resistance. Anamorsin is primarily expressed in the cytoplasm of liver, pancreas and heart tissue cells and does not show any homology to known apoptosis regulatory molecules of the Bcl-2 or CASP families, or to signal transduction molecules. Anamorsin expression in mouse cells confers resistance to apoptosis caused by IL-3 (interleukin-3) deprivation. Studies demonstrate that the addition of growth factors, such as EPO (erythropoietin), SCF (stem cell factor), TPO (thrombopoietin) or IL-3, all of which depend on RAS signaling, induce dose-dependent expression of Anamorsin in mouse cells.

## REFERENCES


1. Loftus, B.J., et al. 1999. Genome duplications and other features in 12 Mb of DNA sequence from chromosome 16p and 16q. Genomics 60: 295-308.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608943. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Shibayama, H., et al. 2004. Identification of a cytokine-induced antiapoptotic molecule anamorsin essential for definitive hematopoiesis. J. Exp. Med. 199: 581-592.
4. Hao, Z., et al. 2005. Preparation and characterization of a specific monoclonal antibody against CIAPIN1. Hybridoma 24: 141-145.


## CHROMOSOMAL LOCATION

Genetic locus: CIAPIN1 (human) mapping to 16q21.

## PRODUCT

Anamorsin siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Anamorsin shRNA Plasmid (h): sc-60168-SH and Anamorsin shRNA (h) Lentiviral Particles: sc-60168-V as alternate gene silencing products.

For independent verification of Anamorsin (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-60168A, sc-60168B and sc-60168C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Anamorsin siRNA (h) is recommended for the inhibition of Anamorsin expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## GENE EXPRESSION MONITORING

Anamorsin (A-3): sc-271298 is recommended as a control antibody for monitoring of Anamorsin gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Anamorsin gene expression knockdown using RT-PCR Primer: Anamorsin (h)-PR: sc-60168-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Truong, S.D.A., et al. 2022. Prediction of CIAPIN1 (cytokine-induced apoptosis inhibitor 1) signaling pathway and its role in cholangiocarcinoma metastasis. J. Clin. Med. 11: 3826.


## 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.