

Anamorsin (A-3): sc-271298

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

- 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.
- 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/>
- Shibayama, H., et al. 2004. Identification of a cytokine-induced anti-apoptotic molecule Anamorsin essential for definitive hematopoiesis. *J. Exp. Med.* 199: 581-592.
- 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.

SOURCE

Anamorsin (A-3) is a mouse monoclonal antibody raised against amino acids 1-312 representing full length Anamorsin of human 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.

Anamorsin (A-3) is available conjugated to agarose (sc-271298 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271298 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271298 PE), fluorescein (sc-271298 FITC), Alexa Fluor[®] 488 (sc-271298 AF488), Alexa Fluor[®] 546 (sc-271298 AF546), Alexa Fluor[®] 594 (sc-271298 AF594) or Alexa Fluor[®] 647 (sc-271298 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271298 AF680) or Alexa Fluor[®] 790 (sc-271298 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Anamorsin (A-3) is recommended for detection of Anamorsin isoforms 1, 2 and 3 of 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 Anamorsin siRNA (h): sc-60168, Anamorsin shRNA Plasmid (h): sc-60168-SH and Anamorsin shRNA (h) Lentiviral Particles: sc-60168-V.

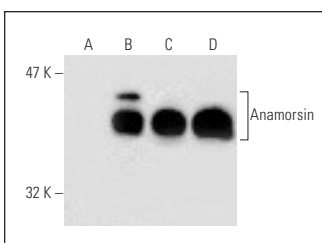
Molecular Weight of Anamorsin: 34 kDa.

Positive Controls: Anamorsin (h) 293T Lysate: sc-176830, MIA PaCa-2 cell lysate: sc-2285 or Hep G2 cell lysate: sc-2227.

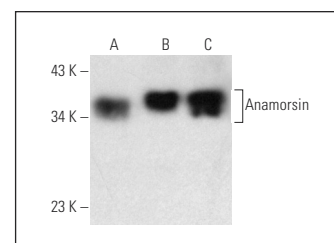
RECOMMENDED SUPPORT REAGENTS

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



Anamorsin (A-3): sc-271298. Western blot analysis of Anamorsin expression in non-transfected 293T: sc-117752 (A), human Anamorsin transfected 293T: sc-117752 (B), MIA PaCa-2 (C) and HeLa (D) whole cell lysates.



Anamorsin (A-3): sc-271298. Western blot analysis of Anamorsin expression in Hep G2 (A), MIA PaCa-2 (B) and NTERA-2 cl.D1 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wang, X., et al. 2015. Cytokine-induced apoptosis inhibitor 1 inhibits the growth and proliferation of multiple myeloma. *Mol. Med. Rep.* 12: 2056-2062.
- Fan, X., et al. 2022. Iron-regulated assembly of the cytosolic iron-sulfur cluster biogenesis machinery. *J. Biol. Chem.* 298: 102094.

STORAGE

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