SANTA CRUZ BIOTECHNOLOGY, INC.

HNF-3γ (A-2): sc-74424

BACKGROUND

HNF-1 (α and β), HNF-3 (α, β and γ), HNF-4 (α and γ) and HNF-6 compose, in part, a homoeprotein family designated the hepatocyte nuclear factor family. The various HNF-1 isoforms regulate transcription of genes in the liver as well as in other tissues such as kidney, small intestine and thymus. HNF-3α, HNF-3β and HNF-3γ regulate the transcription of numerous hepatocyte genes in adult liver. HNF-3α and HNF-3β have also been shown to be involved in gastrulation events such as body axis formation. HNF-4α and HNF-4γ have been shown to be important for early embryo development. HNF-4α is expressed in liver, kidney, pancreas, small intestine, testis and colon; and HNF-4γ is expressed in each of these tissues except liver. HNF-6 has been shown to bind to the promoter of HNF-3β, which indicates a potential role of HNF-6 in gut endoderm epithelial cell differentiation. Evidence suggests that HNF-6 may also be a transriptional activator for at least 22 other hepatocyte-enriched genes, including cytochrome P450 2C13 and α-1 antitrypsin.

REFERENCES

1. Bach, I., et al. 1993. More potent transcriptional activators or a transdominant inhibitor of the HNF-1 homeoprotein family are generated by alternative RNA processing. EMBO J. 12: 4229-4242.
2. Kaestner, K.H., et al. 1994. The HNF-3 gene family of transcription factors in mice: gene structure, cDNA sequence, and mRNA distribution. Genomics 20: 377-385.

CHROMOSOMAL LOCATION

Genetic locus: FOXA3 (human) mapping to 19q13.32; Foxa3 (mouse) mapping to 7 A3.

SOURCE

HNF-3γ (A-2) is a mouse monoclonal antibody raised against amino acids 1-115 of HNF-3γ of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-74424 X, 200 µg/0.1 ml.

HNF-3γ (A-2) is available conjugated to agarose (sc-74424 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74424 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74424 PE), fluorescein (sc-74424 FITC), Alexa Fluor® 488 (sc-74424 AF488), Alexa Fluor® 546 (sc-74424 AF546), Alexa Fluor® 594 (sc-74424 AF594) or Alexa Fluor® 647 (sc-74424 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74424 AF680) or Alexa Fluor® 790 (sc-74424 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

HNF-3γ (A-2) is recommended for detection of HNF-3γ 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).

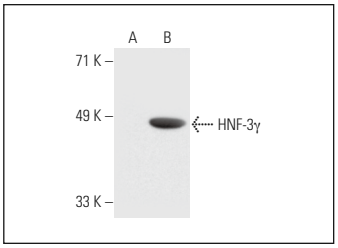
Suitable for use as control antibody for HNF-3γ siRNA (h): sc-35571, HNF-3γ siRNA (m): sc-35572, HNF-3γ shRNA Plasmid (h): sc-35571-SH, HNF-3γ shRNA Plasmid (m): sc-35572-SH, HNF-3γ shRNA (h) Lentiviral Particles: sc-35571-V and HNF-3γ shRNA (m) Lentiviral Particles: sc-35572-V.

HNF-3γ (A-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

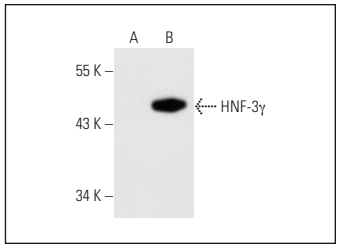
Molecular Weight of HNF-3γ: 45 kDa.

Positive Controls: HNF-3γ (h): 293 Lysate: sc-111854, HNF-3γ (m): 293T Lysate: sc-126959 or Hep G2 cell lysate: sc-2227.

DATA



HNF-3γ (A-2): sc-74424. Western blot analysis of HNF-3γ expression in non-transfected: sc-110760 (**A**) and human HNF-3γ transfected: sc-111854 (**B**) 293 whole cell lysates.



HNF-3γ (A-2): sc-74424. Western blot analysis of HNF-3γ expression in non-transfected: sc-117752 (**A**) and mouse HNF-3γ transfected: sc-126959 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. He, Y., et al. 2015. Advanced glycation end product (AGE)-induced hepatic stellate cell activation via autophagy contributes to hepatitis C-related fibrosis. Acta Diabetol. 52: 959-969.
2. Horisawa, K., et al. 2020. The dynamics of transcriptional activation by hepatic reprogramming factors. Mol. Cell 79: 660-676.e8.
3. Yang, X., et al. 2021. Suppression of cell tumorigenicity by non-neural pro-differentiation factors via inhibition of neural property in tumorigenic cells. Front. Cell Dev. Biol. 9: 714383.
4. Walker, C., et al. 2023. Impact of fetal exposure to endocrine disrupting chemical mixtures on FOXA3 gene and protein expression in adult rat testes. Int. J. Mol. Sci. 24: 1211.
5. Gopoju, R., et al. 2024. Hepatic FOXA3 overexpression prevents Western diet-induced obesity and MASH through TGR5. J. Lipid Res. 65: 100527.

RESEARCH USE

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