SANTA CRUZ BIOTECHNOLOGY, INC.

HNF-3α (H-120): sc-22841

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: FOXA1 (human) mapping to 14q21.1; Foxa1 (mouse) mapping to 12 C1.

SOURCE

HNF-3α (H-120) is a rabbit polyclonal antibody raised against amino acids 51-170 of HNF-3α of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-22841 X, 200 µg/0.1 ml.

HNF-3α (H-120) is available conjugated to agarose (sc-22841 AC), 500µg/ 0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

HNF-3α (H-120) is recommended for detection of HNF-3α of mouse, rat and human origin 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)], 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).

HNF-3α (H-120) is also recommended for detection of HNF-3α in additional species, including bovine.

Suitable for use as control antibody for HNF-3α siRNA (h): sc-37930, HNF-3α siRNA (m): sc-37931, HNF-3α shRNA Plasmid (h): sc-37930-SH, HNF-3α shRNA Plasmid (m): sc-37931-SH, HNF-3α shRNA (h) Lentiviral Particles: sc-37930-V and HNF-3α shRNA (m) Lentiviral Particles: sc-37931-V.

HNF-3α (H-120) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

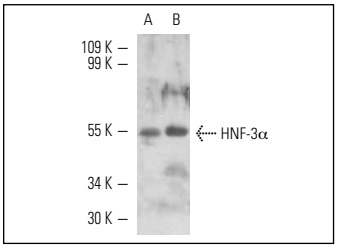
Molecular Weight of HNF-3α: 50 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960.

STORAGE

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

DATA



HNF-3α (H-120): sc-22841. Western blot analysis of HNF-3α expression in Hep G2 (**A**) and DU 145 (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Norquay, L.D., et al. 2005. Hepatocyte nuclear factor-3α binding at P sequences of the human growth hormone locus is associated with pituitary repressor function. Mol. Endocrinol. 20: 598-607.
2. Jia, L., et al. 2008. Genomic androgen receptor-occupied regions with different functions, defined by histone acetylation, coregulators and transcriptional capacity. PLoS ONE 3: e3645.
3. Gao, N., et al. 2008. Dynamic regulation of Pdx1 enhancers by Foxa1 and Foxa2 is essential for pancreas development. Genes Dev. 22: 3435-3448.
4. Miura, H., et al. 2009. Identification of DNA regions and a set of transcriptional regulatory factors involved in transcriptional regulation of several human liver-enriched transcription factor genes. Nucleic Acids Res. 37: 778-792.
5. Tomaru, Y., et al. 2009. Identification of an inter-transcription factor regulatory network in human hepatoma cells by Matrix RNAi. Nucleic Acids Res. 37: 1049-1060.
6. Jia, L., et al. 2009. Functional enhancers at the gene-poor 8q24 cancer-linked locus. PLoS Genet. 5: e1000597.
7. Riffel, A.K., et al. 2009. Regulation of the CYP3A4 and CYP3A7 promoters by members of the nuclear factor I transcription factor family. Mol. Pharmacol. 76: 1104-1114.

RESEARCH USE

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