

HNF-4 α (C-19): sc-6556

BACKGROUND

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

CHROMOSOMAL LOCATION

Genetic locus: HNF4A (human) mapping to 20q13.12; Hnf4a (mouse) mapping to 2 H3.

SOURCE

HNF-4 α (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HNF-4 α of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6556 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6556 X, 200 μ g/0.1 ml.

APPLICATIONS

HNF-4 α (C-19) is recommended for detection of HNF-4 α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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-4 α (C-19) is also recommended for detection of HNF-4 α in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HNF-4 α siRNA (h): sc-35573, HNF-4 α siRNA (m): sc-35574, HNF-4 α shRNA Plasmid (h): sc-35573-SH, HNF-4 α shRNA Plasmid (m): sc-35574-SH, HNF-4 α shRNA (h) Lentiviral Particles: sc-35573-V and HNF-4 α shRNA (m) Lentiviral Particles: sc-35574-V.

HNF-4 α (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

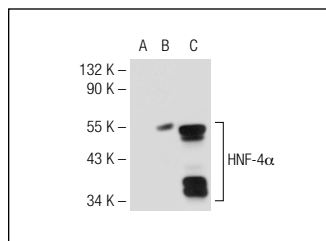
Molecular Weight of full-length HNF-4 α : 54 kDa.

Molecular Weight of N-terminal truncated HNF-4 α : 40 kDa.

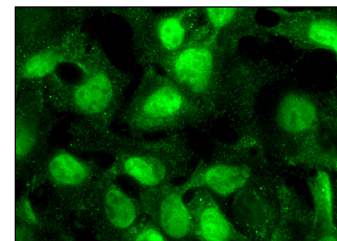
STORAGE

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

DATA



HNF-4 α (C-19): sc-6556. Western blot analysis of HNF-4 α expression in non-transfected 293T: sc-117752 (A), mouse HNF-4 α transfected 293T: sc-126960 (B) and Hep G2 (C) whole cell lysates.



HNF-4 α (C-19): sc-6556. Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Sinal, C.J., et al. 2000. Targeted disruption of the nuclear receptor FXR/BAR impairs bile acid and lipid homeostasis. *Cell* 102: 731-744.
- Kardassis, D., et al. 2000. SMAD proteins transactivate the human ApoCIII promoter by interacting physically and functionally with hepatocyte nuclear factor 4. *J. Biol. Chem.* 275: 41405-41414.
- Niehof, M. and Borlak, J. 2011. HNF4 α dysfunction as a molecular rational for cyclosporine induced hypertension. *PLoS ONE* 6: e16319.
- Yasui, K., et al. 2011. Effects of a catechin-free fraction derived from green tea on gene expression of gluconeogenic enzymes in rat hepatoma H4IIE cells and in the mouse liver. *Biomed. Res.* 32: 119-125.
- Yasui, K., et al. 2011. Effects of oolong tea on gene expression of gluconeogenic enzymes in the mouse liver and in rat hepatoma H4IIE cells. *J. Med. Food* 14: 930-938.
- Jonckheere, N., et al. 2012. GATA-4/-6 and HNF-1/-4 families of transcription factors control the transcriptional regulation of the murine Muc5ac mucin during stomach development and in epithelial cancer cells. *Biochim. Biophys. Acta* 1819: 869-876.
- Naye, F., et al. 2012. Essential roles of zebrafish bmp2a, fgf10, and fgf24 in the specification of the ventral pancreas. *Mol. Biol. Cell* 23: 945-954.
- Simó, R., et al. 2012. Potential role of tumor necrosis factor- α in down-regulating sex hormone-binding globulin. *Diabetes* 61: 372-382.
- Cozzolino, A.M., et al. 2013. TGF β overrides HNF4 α tumor suppressing activity through GSK3 β inactivation: implication for hepatocellular carcinoma gene therapy. *J. Hepatol.* 58: 65-72.
- Heliot, C., et al. 2013. HNF1B controls proximal-intermediate nephron segment identity in vertebrates by regulating Notch signalling components and Irx1/2. *Development* 140: 873-885.

RESEARCH USE

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