

HNF-3 β (P-19): sc-9187

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: FOXA2 (human) mapping to 20p11.21; Foxa2 (mouse) mapping to 2 G3.

SOURCE

HNF-3 β (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HNF-3 β of mouse origin.

PRODUCT

Each vial contains 200 μ g 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-9187 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-9187 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HNF-3 β (P-19) is recommended for detection of HNF-3 β 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-3 β (P-19) is also recommended for detection of HNF-3 β in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HNF-3 β siRNA (h): sc-35569, HNF-3 β siRNA (m): sc-35570, HNF-3 β shRNA Plasmid (h): sc-35569-SH, HNF-3 β shRNA Plasmid (m): sc-35570-SH, HNF-3 β shRNA (h) Lentiviral Particles: sc-35569-V and HNF-3 β shRNA (m) Lentiviral Particles: sc-35570-V.

HNF-3 β (M-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

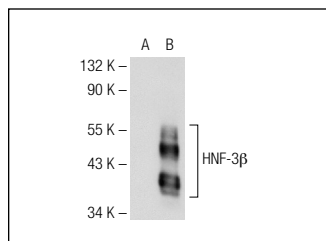
Molecular Weight of HNF-3 : 54 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HNF-3 β (h): 293T Lysate: sc-176240.

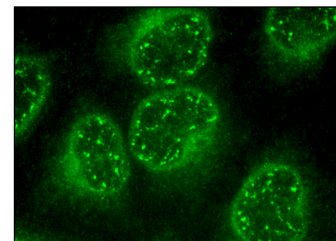
STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



HNF-3 β (P-19): sc-9187. Western blot analysis of HNF-3 β expression in non-transfected: sc-117752 (A) and human HNF-3 β transfected: sc-176240 (B) 293T whole cell lysates.



HNF-3 β (P-19): sc-9187. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

- Duong, D.T., et al. 2002. Insulin inhibits hepatocellular glucose production by utilizing liver-enriched transcriptional inhibitory protein to disrupt the association of CREB-binding protein and RNA polymerase II with the phosphoenolpyruvate carboxykinase gene promoter. *J. Biol. Chem.* 277: 32234-32242.
- Nock, A., et al. 2009. Identification of DNA-dependent protein kinase as a cofactor for the forkhead transcription factor FoxA2. *J. Biol. Chem.* 284: 19915-19926.
- Lin, Y.M., et al. 2010. Tissue engineering of lung: the effect of extracellular matrix on the differentiation of embryonic stem cells to pneumocytes. *Tissue Eng. Part A* 16: 1515-1526.
- Zhang, Y., et al. 2010. ErbB3 binding protein 1 represses metastasis-promoting gene anterior gradient protein 2 in prostate cancer. *Cancer Res.* 70: 240-248.
- Lyashenko, N., et al. 2011. Differential requirement for the dual functions of β -catenin in embryonic stem cell self-renewal and germ layer formation. *Nat. Cell Biol.* 13: 753-761.
- Sui, L., et al. 2012. FGF signaling via MAPK is required early and improves activin A-induced definitive endoderm formation from human embryonic stem cells. *Biochem. Biophys. Res. Commun.* 426: 380-385.

RESEARCH USE

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



Try **HNF-3 β (H-4): sc-374376** or **HNF-3 β (A-12): sc-374375**, our highly recommended monoclonal alternatives to HNF-3 β (P-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **HNF-3 β (H-4): sc-374376**.