



HNF-1 (H-205): sc-8986

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 (1-4). 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 (1). 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 (2,4). 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 (3). 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 (4).

SOURCE

HNF-1 (H-205) is a rabbit polyclonal antibody raised against a recombinant protein corresponding to amino acids 80-284 mapping within an internal region of HNF-1 α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

Also available as HNF-1 (H-205) X TransCruz antibody: sc-8986 X for gel supershift studies; supplied as 200 μ g IgG in 0.1 ml PBS containing 0.1% sodium azide.

STORAGE

Store at 4° C, do not freeze; stable for one year from the date of shipment.

SPECIFICITY

HNF-1 (H-205) reacts with HNF-1 α and HNF-1 β of mouse, rat and human origin by Western blotting, immunoprecipitation and immunohistochemistry (including paraffin-embedded sections).

HNF-1 (H-205) X TransCruz antibody is recommended for gel supershift studies.

Recommended dilution range for Western blot analysis: 1:200–1:1000. Recommended starting dilution: 1:200.

Molecular weight of HNF-1: 75 kDa, 67 kDa.

Western blotting positive control: Hep G2 WCL, sc-2227: mouse liver extract, sc-2256; rat liver extract, sc-2395.

RESEARCH USE

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

REFERENCES

1. Bach, I. and Yaniv, M. 1993. More potent transcriptional activators or a transdominant inhibitor of the HNF1 homeoprotein family are generated by alternative RNA processing. *EMBO J.* **12**: 4229-4242.
2. Kaestner, K.H., Hiemisch, H., Luckow, B., and Schutz, G. 1994. The HNF-3 gene family of transcription factors in mice: gene structure, cDNA sequence, and mRNA distribution. *Genomics* **20**: 377-385.
3. Drewes, T., Senkel, S., Holewa, B., and Ryffel, G.U. 1996. Human hepatocyte nuclear factor 4 isoforms are encoded by distinct and differentially expressed genes. *Mol. Cell Biol.* **16**: 925-931.
4. Samadani, U. and Costa, R.H. 1996. The transcriptional activator hepatocyte nuclear factor 6 regulates liver gene expression. *Mol. Cell Biol.* **16**: 6273-6284.

