

HNF-4 γ (C-18): sc-6558

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.

REFERENCES

1. Bach, I., et al. 1993. More potent transcriptional activators or a trans-dominant 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.
3. Drewes, T., et al. 1996. Human hepatocyte nuclear factor 4 isoforms are encoded by distinct and differentially expressed genes. *Mol. Cell. Biol.* 16: 925-931.

CHROMOSOMAL LOCATION

Genetic locus: HNF4G (human) mapping to 8q21.11; Hnf4g (mouse) mapping to 3 A1.

SOURCE

HNF-4 γ (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HNF-4 γ of human origin.

PRODUCT

Each vial contains 200 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-6558 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-6558 X, 200 μ g/0.1 ml.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

HNF-4 γ (C-18) is recommended for detection of HNF-4 γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 γ (C-18) is also recommended for detection of HNF-4 γ in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HNF-4 γ siRNA (h): sc-37934, HNF-4 γ siRNA (m): sc-37935, HNF-4 γ shRNA Plasmid (h): sc-37934-SH, HNF-4 γ shRNA Plasmid (m): sc-37935-SH, HNF-4 γ shRNA (h) Lentiviral Particles: sc-37934-V and HNF-4 γ shRNA (m) Lentiviral Particles: sc-37935-V.

HNF-4 γ (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HNF-4 γ : 49 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Wang, B., et al. 2001. Lipopolysaccharide results in a marked decrease in hepatocyte nuclear factor 4 α in rat liver. *Hepatology* 34: 979-989.
2. Sauvaget, D., et al. 2002. Restriction of apolipoprotein A-IV gene expression to the intestine villus depends on a hormone-responsive element and parallels differential expression of the hepatic nuclear factor 4 α and γ isoforms. *J. Biol. Chem.* 277: 34540-34548.
3. Selva, D.M., et al. 2005. Repression of the human sex hormone-binding globulin gene in Sertoli cells by upstream stimulatory transcription factors. *J. Biol. Chem.* 280: 4462-4468.
4. 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.