**BACKGROUND**

HNF-1 (α and β), HNF-3 (α, β, and γ), HNF-4 (α, β, 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-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. 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**

3. Drewes, T., et al. 1996. Human hepatocyte nuclear factor 4 isoforms are 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 transcriptional activator for at least 22 other hepatocyte-enriched genes, including cytochrome P450 2C13 and α-1 antitrypsin.

**PRODUCT**

Each vial contains 200 µg IgG 1 kappa light chain 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-393668 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-393668 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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

**APPLICATIONS**

HNF-1α (B-3) is recommended for detection of HNF-1α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-1α (B-3) is also recommended for detection of HNF-1α in additional species, including canine and porcine.

Suitable for use as control antibody for HNF-1α siRNA (h): sc-35567, HNF-1α siRNA (m): sc-35568, HNF-1α shRNA Plasmid (h): sc-35567-SH, HNF-1α shRNA Plasmid (m): sc-35568-SH, HNF-1α shRNA (h) Lentiviral Particles: sc-35567-V and HNF-1α shRNA (m) Lentiviral Particles: sc-35568-V.

Molecular Weight of HNF-1α: 79 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caco-2 cell lysate: sc-2262 or c4 whole cell lysate: sc-364186.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminos Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml), immuno precipitation[1-2µg per 100-500 µg of total protein (1 ml of cell lysate)].

**DATA**

See HNF-1α (F-7): sc-393925 for HNF-1α antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.

**RESEARCH USE**

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