SANTA CRUZ BIOTECHNOLOGY, INC.

HNF-6 (B-1): sc-376308

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HNF-1 (α and β), HNF-3 (α, β and γ), HNF-4 (α and γ), and HNF-6 compose, in part, a homoeprotein 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. HNF-4α is expressed in liver, kidney, pancreas, small intestine, testis and colon; and HNF-4γ is 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 transriptional activator for at least 22 other hepatocyte-enriched genes, including cytochrome P450 2C13 and α-1 antitrypsin.

CHROMOSOMAL LOCATION

Genetic locus: ONECUT1 (human) mapping to 15q21.3; Onecut1 (mouse) mapping to 9 D.

SOURCE

HNF-6 (B-1) is a mouse monoclonal antibody raised against amino acids 11-110 of HNF-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-376308 X, 200 µg/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.

APPLICATIONS

HNF-6 (B-1) is recommended for detection of HNF-6 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-6 (B-1) is also recommended for detection of HNF-6 in additional species, including canine.

Suitable for use as control antibody for HNF-6 siRNA (h): sc-37936, HNF-6 siRNA (m): sc-37937, HNF-6 shRNA Plasmid (h): sc-37936-SH, HNF-6 shRNA Plasmid (m): sc-37937-SH, HNF-6 shRNA (h) Lentiviral Particles: sc-37936-V and HNF-6 shRNA (m) Lentiviral Particles: sc-37937-V.

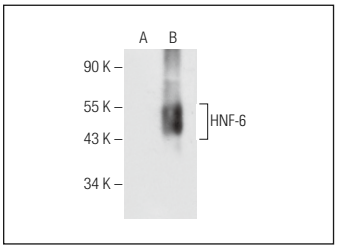
HNF-6 (B-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: HNF-6 (m): 293T Lysate: sc-120850 or Hep G2 nuclear extract: sc-364819.

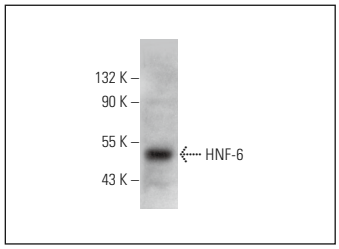
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HNF-6 (B-1): sc-376308. Western blot analysis of HNF-6 expression in non-transfected: sc-117752 (**A**) and mouse HNF-6 transfected: sc-120850 (**B**) 293T whole cell lysates.



HNF-6 (B-1): sc-376308. Western blot analysis of HNF-6 expression in Hep G2 nuclear extract.

SELECT PRODUCT CITATIONS

1. Patoori, S., et al. 2020. *Cis*-regulatory analysis of Onecut1 expression in fate-restricted retinal progenitor cells. Neural Dev. 15: 5.
2. Schick, E., et al. 2021. Early *cis*-regulatory events in the formation of retinal horizontal cells. Dev. Biol. 476: 88-100.
3. Kaplan, S.J., et al. 2024. CRISPR screening uncovers a long-range enhancer for ONECUT1 in pancreatic differentiation and links a diabetes risk variant. Cell Rep. 43: 114640.
4. Toriyama, K., et al. 2024. HNF6 and HNF4α expression in adenocarcinomas of the liver, pancreaticobiliary tract, and gastrointestinal tract: an immunohistochemical study of 480 adenocarcinomas of the digestive system. Pathology 56: 804-813.

RESEARCH USE

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

PROTOCOLS

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