

HNF-6 (G-10): sc-376167

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 transdominant inhibitor of the HNF1 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.

CHROMOSOMAL LOCATION

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

SOURCE

HNF-6 (G-10) is a mouse monoclonal antibody raised against amino acids 11-110 of HNF-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ 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-376167 X, 200 μ g/0.1 ml.

HNF-6 (G-10) is available conjugated to agarose (sc-376167 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376167 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376167 PE), fluorescein (sc-376167 FITC), Alexa Fluor[®] 488 (sc-376167 AF488), Alexa Fluor[®] 546 (sc-376167 AF546), Alexa Fluor[®] 594 (sc-376167 AF594) or Alexa Fluor[®] 647 (sc-376167 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376167 AF680) or Alexa Fluor[®] 790 (sc-376167 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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 (G-10) 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 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).

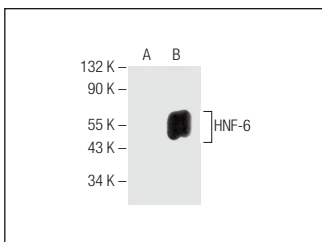
HNF-6 (G-10) is also recommended for detection of HNF-6 in additional species, including canine.

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 (G-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: HNF-6 (m2): 293T Lysate: sc-120850.

DATA



HNF-6 (G-10): sc-376167. 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.

SELECT PRODUCT CITATIONS

1. Chavan, R., et al. 2017. REV-ERB α regulates Fgf21 expression in the liver via hepatic nuclear factor 6. *Biol. Open* 6: 1-7.
2. Han, F., et al. 2018. SOX30 inhibits tumor metastasis through attenuating Wnt-signaling via transcriptional and posttranslational regulation of β -catenin in lung cancer. *EBioMedicine* 31: 253-266.
3. Wang, G., et al. 2020. Arf1-mediated lipid metabolism sustains cancer cells and its ablation induces anti-tumor immune responses in mice. *Nat. Commun.* 11: 220.
4. Kitano, H., et al. 2022. HepG2-based designer cells with heat-inducible enhanced liver functions. *Cells* 11: 1194.
5. Fei, L., et al. 2023. Single-cell epigenome analysis identifies molecular events controlling direct conversion of human fibroblasts to pancreatic ductal-like cells. *Dev. Cell* 58: 1701-1715.e8.

RESEARCH USE

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