

Rabbit Anti-phospho-HNF4 (Ser304)/Biotin Conjugated antibody

SL8451R-Bio

Product Name Anti-phospho-HNF4 (Ser304)/Biotin

Chinese Name 生物素标记的磷酸化肝 The nucleus 因子 4 α 抗体

Alias

HNF4(Phospho-Ser304); Hepatic nuclear factor 4 alpha; Hepatocyte nuclear factor 4 alpha; Hepatocyte nuclear factor 4; HNF 4 alpha; HNF 4; HNF4; HNF4A; HNF4a7; HNF4a8; HNF4a9; Hnf4alpha; MODY 1; MODY; MODY1; NR2A1; NR2A21; Nuclear receptor subfamily 2 group A member 1; TCF 14; TCF; TCF14; Tcf4; Transcription factor 14, hepatic nuclear factor; Transcription factor 14; Transcription factor HNF 4; Transcription factor HNF4; HNF4A_HUMAN.

Product Type Phosphorylated anti

Research Area Tumour Cell biology immunology Chromatin and nuclear signals Signal transduction transcriptional regulatory factor Kinases and Phosphatases

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human,Mouse(predicted:Rat,Chicken,Pig,Cow,Horse,Rabbit,Zebrafish,GuineaPig)
WB=1:500-2000, IHC-P=1:100-500, IHC-F=1:100-500, IF=1:100-500,
Flow-Cyt=1ug/test

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Molecular weight 52kDa

Form Lyophilized or Liquid

Concentration 1mg/ml

immunogen KLH conjugated Synthesised phosphopeptide derived from human HNF4 alpha around the phosphorylation site of Ser304

Lsotype IgG

Purification affinity purified by Protein A

Storage Buffer 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized

antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

background:

The protein encoded by the HNF4 gene is a nuclear transcription factor which binds DNA as a homodimer. The encoded protein controls the expression of several genes, including hepatocyte nuclear factor 1 alpha, a transcription factor which regulates the expression of several hepatic genes. This gene may play a role in development of the liver, kidney, and intestines. Mutations in this gene have been associated with monogenic autosomal dominant non insulin dependent diabetes mellitus type I. At least three different transcript variants encoding three different isoforms have been found for this gene.

Function:

Transcriptionally controlled transcription factor. Binds to DNA sites required for the transcription of alpha 1-antitrypsin, apolipoprotein CIII, transthyretin genes and HNF1-alpha. May be essential for development of the liver, kidney and intestine.

Subunit:

Homodimerization is required for HNF4-alpha to bind to its recognition site.

Subcellular Location:

Nucleus.

Post-translational modifications:

Phosphorylated on tyrosine residue(s); phosphorylation is important for its DNA-binding activity. Phosphorylation may directly or indirectly play a regulatory role in the subnuclear distribution. Phosphorylation at Ser-313 by AMPK reduces the ability to form homodimers and bind DNA.

Acetylation at Lys-458 lowers transcriptional activation by about two-fold.

DISEASE:

Defects in HNF4A are the cause of maturity-onset diabetes of the young type 1 (MODY1) [MIM:125850]; also symbolized MODY-1. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

Similarity:

Belongs to the nuclear hormone receptor family. NR2 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

Database links:

**Product
Detail**



[Entrez Gene: 3172](#) Human

[Entrez Gene: 15378](#) Mouse

[Entrez Gene: 25735](#) Rat

[Omim: 600281](#) Human

[SwissProt: P41235](#) Human

[SwissProt: P49698](#) Mouse

[SwissProt: P22449](#) Rat

[Unigene: 116462](#) Human

[Unigene: 202383](#) Mouse

[Unigene: 12238](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.