

## Product datasheet for **AP22495PU-N**

### **HNF 4 alpha (HNF4A) (2-15) Goat Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/32000. <b>Immunohistochemistry on Paraffin Sections:</b> 2 µg/ml. <b>Western Blot:</b> 0.1 - 0.3 µg/ml.
Reactivity:	Canine, Human, Porcine, Bat, Equine, Hamster, Monkey, Rabbit
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from the N-terminus of human HNF4A / HNF4 (NP_849180.1; NP_000448.3; NP_849181.1)
Specificity:	This antibody detects HNF4 alpha / TCF14 (N-term). This antibody is expected to recognise the reported isoforms a, b and c (NP_849180.1; NP_000448.3; NP_849181.1 resp.).
Formulation:	Tris saline buffer, pH 7.3, 0.5% BSA, 0.02% sodium azide State: Aff - Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Immunoaffinity chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	hepatocyte nuclear factor 4 alpha
Database Link:	<a href="#">Entrez Gene 3172 Human P41235</a>



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**Background:**

Hepatocyte nuclear factor 4 alpha (HNF4 alpha), a NR2 Hepatocyte NF4-Like receptor, is a liver-enriched transcription factor that is involved in the expression of liver-specific genes. HNF4 alpha controls the expression of transcription factor HNF1, which is important in the expression of hepatic genes, including those involved in glucose, cholesterol, and fatty acid metabolism. HNF4 alpha is essential for hepatocyte differentiation during liver development, metabolic regulation, and liver function. Although HNF4 alpha is a tissue-specific transcription factor, it is also an essential regulator of early embryonic events. Mutations in the HNF4 alpha gene are responsible for type-1 maturity-onset diabetes of the young (MODY1), which is characterized by a defect in insulin secretion. Mutations in HNF4 alpha binding sites have been linked to hemophilia B Leyden, atherosclerosis, hepatitis, and other diseases. HNF4 alpha has been linked to liver cancer via hepatitis and hepatitis B viral infections. Mouse embryos lacking HNF4 alpha fail to complete gastrulation due to dysfunction of the visceral endoderm. Recently, it has been shown that HNF4 alpha is critically involved in the PXR- and CAR-mediated transcriptional activation of CYP3A4, a gene involved in the metabolism of a wide range of drugs Tirona et al. 2003. At least four isoforms (HNF4 alpha1/HNF4B, HNF4 alpha2/HNF4A, HNF4 alpha3/HNF4C, and HNF4 alpha4) are produced by alternative splicing.

**Synonyms:**

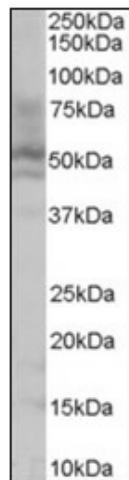
HNF4A, HNF4, NR2A1, Hepatocyte nuclear factor 4-alpha, Transcription factor HNF-4, Transcription factor 14

**Protein Families:**

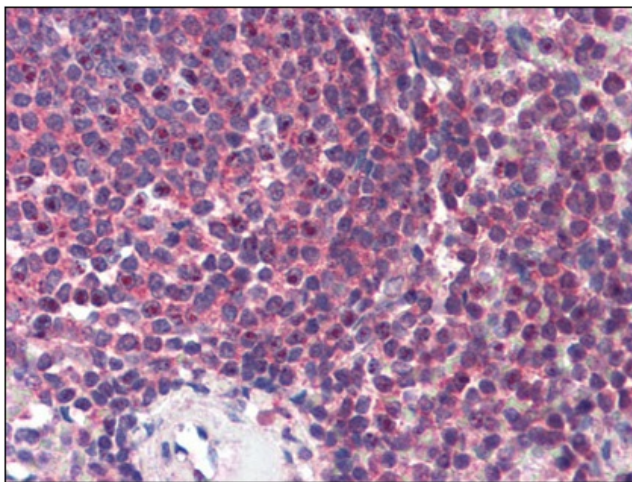
Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors

**Protein Pathways:**

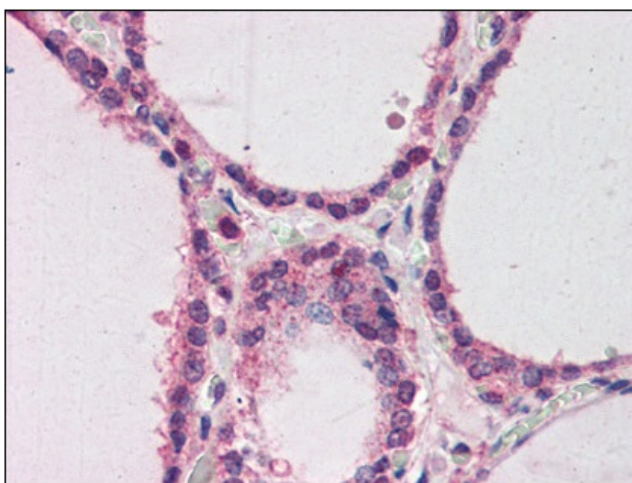
Maturity onset diabetes of the young

**Product images:**

Antibody (0.1 ug/ml) staining of HepG2 lysate (35 ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



Human Spleen (formalin-fixed, paraffin-embedded) stained with HNF4A antibody at 2 ug/ml followed by biotinylated anti-goat IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.



Human Thyroid (formalin-fixed, paraffin-embedded) stained with HNF4A antibody at 2 ug/ml followed by biotinylated anti-goat IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.