

## Product datasheet for **TP317924L**

### **HNF 4 alpha (HNF4A) (NM\_178850) Human Recombinant Protein**

#### **Product data:**

**Product Type:** Recombinant Proteins  
**Description:** Recombinant protein of human hepatocyte nuclear factor 4, alpha (HNF4A), transcript variant 3, 1 mg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC217924 representing NM\_178850  
**Red**=Cloning site **Green**=Tags(s)

MRLSKTLVDMDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTLNAPNSLGVSAALCAICGDRATGK  
HYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTR  
RSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLEWAKYIPAFCE  
LPLDDQVALLRAHAGEHLLL GATKRS MVFKD VLLL GNDYIVPRHCP ELAEMSRVSIRILDELVLPFQELQ  
IDDNEYAYLKAIIFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQ  
MIEQIQFIKLFGMKIDNLLQEMLLGGPCQAQEGRGWSDSPGDRPHTVSSPLSSLASPLCRFGQVA

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

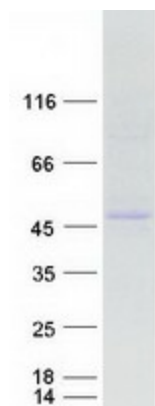
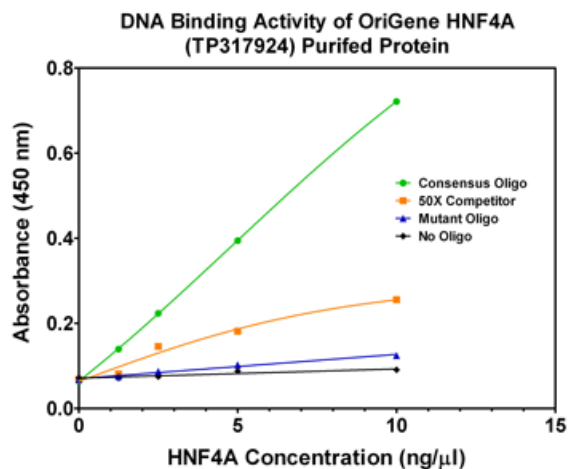
**Tag:** C-Myc/DDK  
**Predicted MW:** 46.4 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Bioactivity:</b>	HNF4A Activity Verified in a DNA-binding Assay: HNF4A (TP317924, transcript variant 3) activity was measured in a colorimetric DNA-binding assay. Purified HNF4A protein containing a C-terminal MYC/DDK tag was incubated with biotinylated double-stranded oligonucleotide containing the HNF4A consensus DNA-binding sequence (see below). Following incubation, the reaction was transferred to a streptavidin-coated microplate to allow capture of the DNA-protein complex. After washing, the captured protein was detected with an anti-DDK peroxidase conjugate and colorimetric signal detection with TMB. Specificity of the protein-DNA interaction was confirmed by carrying out the binding in the presence of an unlabeled competitor oligonucleotide and by comparison to binding to an oligonucleotide containing a mutation in the consensus binding sequence.
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_849181</a>
<b>Locus ID:</b>	3172
<b>UniProt ID:</b>	<a href="#">P41235</a>
<b>RefSeq Size:</b>	1600
<b>Cytogenetics:</b>	20q13.12
<b>RefSeq ORF:</b>	1251
<b>Synonyms:</b>	FRTS4; HNF4; HNF4a7; HNF4a8; HNF4a9; HNF4alpha; MODY; MODY1; NR2A1; NR2A21; TCF; TCF-14; TCF14
<b>Summary:</b>	The protein encoded by this 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. Alternative splicing of this gene results in multiple transcript variants encoding several different isoforms. [provided by RefSeq, Apr 2012]
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors
<b>Protein Pathways:</b>	Maturity onset diabetes of the young

## Product images:



Coomassie blue staining of purified HNF4A protein (Cat# [TP317924]). The protein was produced from HEK293T cells transfected with HNF4A cDNA clone (Cat# [RC217924]) using MegaTran 2.0 (Cat# [TT210002]).