

Product datasheet for **TP317924M**

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, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC217924 representing NM_178850 Red =Cloning site Green =Tags(s)

MRLSKTLVDMDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTLNAPNSLGVSAALCAICGDRATGK
HYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCWVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTR
RSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCEMKEQLLVLEWAKYIPAFCE
LPLDDQVALLRAHAGEHLLL GATKRS MVFKD VLLL GNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQ
IDDNEYAYLKAIIFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQ
MIEQIQFIKLFGMKIDNLLQEMLLGGPCQAQEGRGWSPGDRPHTVSSPLSSLASPLCRFGQVA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

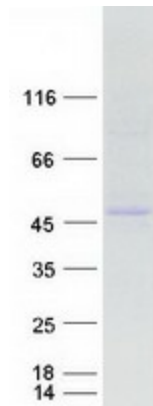
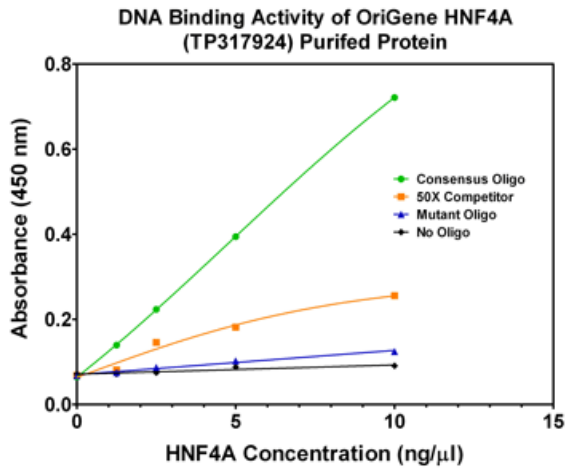
Tag:	C-Myc/DDK
Predicted MW:	46.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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Bioactivity:	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.
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_849181
Locus ID:	3172
UniProt ID:	P41235
RefSeq Size:	1600
Cytogenetics:	20q13.12
RefSeq ORF:	1251
Synonyms:	FRTS4; HNF4; HNF4a7; HNF4a8; HNF4a9; HNF4alpha; MODY; MODY1; NR2A1; NR2A21; TCF; TCF-14; TCF14
Summary:	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]
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors
Protein Pathways:	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]).