

## Product datasheet for TP316588

### HNF 4 alpha (HNF4A) (NM\_001030004) Human Recombinant Protein

#### Product data:

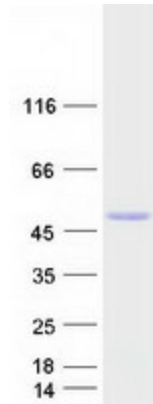
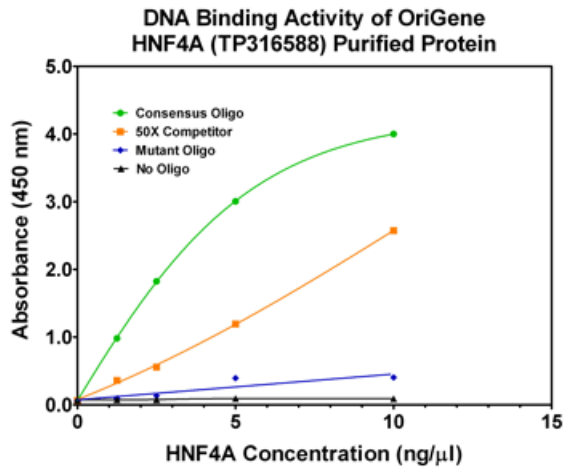
Product Type:	Recombinant Proteins
Description:	Recombinant protein of human hepatocyte nuclear factor 4, alpha (HNF4A), transcript variant 6, 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC216588 representing NM_001030004 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	MVSVNAPLGAPVESSYDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNH MYSCRFSRQCVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRSSYEDSSLPSINALLQAEVLS RQITSPVSGINGDIRAKKIASIADVCEMKEQLLVLEWAKYIPAFCELPDQVALLRAHAGEHLLGA TKRSMVFKDVLGNDYIVPRHCELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPAKGL SDPGKIKRLRSQVQSLEDYINDRQYDSRGRFGELLLLLPTLQSIWQMIEQIQFIKLFGMKIDNLLQE MLLGGPCQAQEGRGWSDSPGDRPHTVSSPLSSLASPLCRFGQVA
	<b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>
Tag:	C-Myc/DDK
Predicted MW:	43.8 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>	<p>HNF4A Activity Verified in a DNA-binding Assay: HNF4A (TP316588, transcript variant 6) 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.</p> <p>EMSA reaction positive control (PMID: <a href="#">29669937</a>)</p>
<b>Preparation:</b>	<p>Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.</p>
<b>Note:</b>	<p>For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.</p>
<b>Storage:</b>	<p>Store at -80°C.</p>
<b>Stability:</b>	<p>Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.</p>
<b>RefSeq:</b>	<p><a href="#">NP_001025175</a></p>
<b>Locus ID:</b>	<p>3172</p>
<b>UniProt ID:</b>	<p><a href="#">P41235</a></p>
<b>RefSeq Size:</b>	<p>1192</p>
<b>Cytogenetics:</b>	<p>20q13.12</p>
<b>RefSeq ORF:</b>	<p>1185</p>
<b>Synonyms:</b>	<p>FRTS4; HNF4; HNF4a7; HNF4a8; HNF4a9; HNF4alpha; MODY; MODY1; NR2A1; NR2A21; TCF; TCF-14; TCF14</p>
<b>Summary:</b>	<p>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]</p>
<b>Protein Families:</b>	<p>Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors</p>
<b>Protein Pathways:</b>	<p>Maturity onset diabetes of the young</p>

Product images:



Coomassie blue staining of purified HNF4A protein (Cat# TP316588). The protein was produced from HEK293T cells transfected with HNF4A cDNA clone (Cat# [RC216588]) using MegaTran 2.0 (Cat# [TT210002]).