

Diabetes-linked transcription factor HNF4 α regulates metabolism of endogenous methylarginines and β -aminoisobutyric acid by controlling expression of alanine-glyoxylate aminotransferase 2

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Name	Sequence (5'-3')	Source
Cloning		
End F	GCTCTCGAGGCCTCCATTTTTCTCATTATTTAAGGT	
End R	ACAAAGCTTCTCTTCCCAGGCAGAAAGAA	
Mut 1 F	TCTTCTAATATCAAAGTCGAGTCCAGTCAGTGAGC	
Mut 1 R	GCTCACTGACTGGACTCGACTTTGATATTAGAAGA	
Mut 2 F	TCTTCTAATATCTCAGTCGAGTCCAGTCAGTGAGC	
Mut 2 R	GCTCACTGACTGGACTCGACTGAGATATTAGAAGA	
Mut 3 F	TCTTCTAATATAGCCTTCGAGTCCAGTCAGTGAGC	
Mut 3 R	GCTCACTGACTGGACTCGAAGGCTATATTAGAAGA	
Mut 4 F	TCTTCTAATCAAGCCTCAGAGTCCAGTCAGTGAGC	
Mut 4 R	GCTCACTGACTGGACTCTGAGGCTTGATTAGAAGA	
qPCR for mRNA quantification		
Agxt2 F	sequence not enclosed	Qiagen QT01557682
Agxt2 R	sequence not enclosed	Qiagen QT01557682
Hnf4a F	AGAAGATTGCCAACATCAC	
Hnf4a R	GGTCATCCAGAAGGAGTT	
Hnf4a F2	AGAAGATTGCCAACATCAC	
Hnf4a R2	GGTCATCCAGAAGGAGTT	
Ddah1 F	CTACGCAGTCTCTACAGT	
Ddah1 R	TCATAACGATGGTCACTCA	
Ddah2 F	AAAGCAGTCAGGGCAATG	
Ddah2 R	CCAGGACGCAGAAAGAGA	
HPRT F	CTTTGCTGACCTGCTGGATTAC	
HPRT R	ATCCAACACTTCGAGAGGTCC	
Gclc F	CTACCACGCAGTCAAGGACC	1
Gclc R	CCTCCATTCAAGTAACAACACTGGAC	1
RpL13 F	ATCCCTCCACCCTATGACAA	
RpL13 R	GCCCCAGGTAAGCAAACCTT	
qPCR for ChIP analyses		
Exp 1 F	AAGTCCATTTATAGTCAGCAGTCT	
Exp 1 R	CTGTGGAAGCAGGTCAGC	
Exp 2 F	CCCAAGTCCATTTATAGTCA	
Exp 2 R	TCCAGGCTAGAGACATC	
Neg 1 F	CGTGGTTGTTACTAAGTGTGTTCA	
Neg 1 R	TGGTATGTGCTCATTCTTGTCTCA	
Neg 2 F	CATCTGTCTTGCTCAGTTCTT	
Neg 2 R	GCTGTTGTGTAGTGCTCTC	
Pos 1 F	CAAGGCTGAAGTCCAAAG	2
Pos 1 R	CTGCTCTGTTTACATTGGA	2

Supplementary Table S1. Sequences of PCR and cloning primers used in work. Primers, for which the source is not specified, were self-designed.

References:

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2. Cozzolino, A. M. *et al.* TGF β overrides HNF4 α tumor suppressing activity through GSK3 β inactivation: implication for hepatocellular carcinoma gene therapy. *J. Hepatol.* **58**, 65–72 (2013).