

## Appendix 2: Treatment responsive alternatively spliced transcripts.

Responsive to T1 and T2*		Responsive to T1*		Responsive to T2*		Unresponsive to T1 and T2*	
<b>Abca8a</b>	ATP-binding cassette, sub-family A (ABC1), member 8a	Arr3	Arrestin 3, retinal	Agtppb1	ATP/GTP binding protein 1	Efa2	EF-hand domain family, member A2
<b>Ankrd39</b>	Ankyrin repeat domain 39	Gprasp2	G protein-coupled receptor associated sorting protein 2	Ank2	Ankyrin 2, brain	Fam169a	Family with sequence similarity 169, member A
<b>Apip</b>	APAF1 interacting protein; similar to MMRP19	Gse1	Genetic suppressor element 1	Dus1l	Dihydrouridine synthase 1-like (S. Cerevisiae)	Gprasp1	G protein-coupled receptor associated sorting protein 1
<b>Bdh1</b>	3-hydroxybutyrate dehydrogenase, type 1	Nsmaf	Neutral sphingomyelinase (N-smase) activation associated factor	Eif4g3	Eukaryotic translation initiation factor 4 gamma, 3	Hnrnp3	Heterogeneous nuclear ribonucleoprotein H3
<b>Cltb</b>	Clathrin, light polypeptide (Lcb)	Sgip1	SH3-domain GRB2-like (endophilin) interacting protein 1	Epb4.1l2	Erythrocyte protein band 4.1 -like 2	Kif1a	Kinesin family member 1A
<b>Commd6</b>	COMM domain containing 6	Ubtf	Upstream binding transcription factor, RNA polymerase I	Fam193b	Family with sequence similarity 193, member B, cDNA sequence BC021381	Ncor1	Nuclear receptor co-repressor 1
<b>Dclk2</b>	Doublecortin-like kinase 2	Unc99	Unc-99 homolog	Hook2	Hook homolog 2 (Drosophila)	Pla2g5	Phospholipase A2, group V
<b>Dedd2</b>	Death effector domain-containing DNA binding protein 2			Pcmd2	Protein-L-isoaspartate (D-aspartate) O-methyltransferase domain 2	RP23-285G5.1	Uncharacterized
<b>Dync1li2</b>	Dynein, cytoplasmic 1 light intermediate chain 2			Tpm3	Tropomyosin 3, gamma	Slc25a19	Solute carrier family 25 (mitochondrial TPP carrier)
<b>Fam161a</b>	Family with sequence similarity 161A					Strn	Striatin, calmodulin binding protein
<b>Fam184a</b>	Family with sequence similarity 184 A					Zfp444	Zinc finger protein 444
<b>Gggs1</b>	Geranyl geranyl diphosphate synthase 1						
<b>Gripap1</b>	GRIP1 associated protein 1						
<b>Impg2</b>	Interphotoreceptor matrix proteoglycan 2						
<b>Plekha6</b>	Pleckstrin homology domain containing, A6						
<b>Ppie</b>	Peptidylprolyl isomerase E (cyclophilin E)						
<b>Ptpnf</b>	Protein tyrosine phosphatase, receptor F						
<b>Samhd1</b>	SAM domain and HD domain 1						
<b>Scamp3</b>	Secretory carrier membrane protein 3						
<b>Smc5</b>	Structural maintenance of chromosomes 5						
<b>Sorbs1</b>	Sorbin and SH3 domain containing 1						
<b>Trpm1</b>	Transient receptor potential cation channel 1						
<b>Tsc2</b>	Tuberous sclerosis 2						
<b>Zcrb1</b>	Zinc finger CCHC-type and RNA binding 1						
<b>Zmiz2</b>	Zinc finger, MIZ-type containing 2						

Table 12 Cont.

Exacerbated by T1 and T2*		Exacerbated by T1*		Exacerbated by T2*			
<b>Ccdc64</b>	Coiled-coil domain containing 64	Akap8	A kinase (PRKA) anchor protein 8	Ablim1	Actin-binding LIM protein 1	Mapk8i 3	Mitogen-activated protein kinase 8 interacting protein 3
<b>Cugbp2</b>	Elav-like family member 2	Amy2a2	Amylase 2a2	Adarb1	Adenosine deaminase, RNA-specific, B1	Mpp2	Membrane protein, palmitoylated 2
<b>Dctn6</b>	Dynactin 6	Amy2a3	Amylase 2a3	Asph	Aspartate-beta-hydroxylase	Msi1	Musashi homolog 1(Drosophila)
<b>Mak</b>	Male germ cell-associated kinase	Amy2a4	Amylase 2a4	Axin1	Similar to Axin; axin 1	P4ha1	Proline 4-hydroxylase
<b>Mare</b>	V-maf musculoaponeurotic fibrosarcoma oncogene family	Ap1b1	Adaptor protein complex AP-1, beta 1 subunit	BC018101	Zinc finger protein 97; cdna sequence BC018101	Papola	Poly (A) polymerase alpha
<b>Scarb1</b>	Scavenger receptor class B, member 1	Arhgap12	Rho GTPase activating protein 12	BC037034	Cdna sequence BC037034	Pax6	Paired box gene 6
<b>Slc30a9</b>	Solute carrier family 30 (zinc transporter), member 9	Atrx	Alpha thalassemia/mental retardation syndrome X-linked homolog	Bod1l	Biorientation of chromosomes in cell division 1-like	Pcdhga11	Protocadherin gamma subfamily A, 11
<b>Trnau1ap</b>	Trna selenocysteine 1 associated protein 1	Cspp1	Centrosome and spindle pole associated protein 1	Brsk2	BR serine/threonine kinase 2	Pcsk7	Proprotein convertase subtilisin/kexin type 7
<b>Whrn</b>	Whirlin	D4Erttd22e	DNA segment, Chr 4, ERATO Doi 22, expressed	Cacna1a	Calcium channel, voltage-dependent, P/Q type, alpha 1A subunit	Pex16	Peroxisomal biogenesis factor 16
		Dph3	DPH3 homolog	Cep164	Centrosomal protein 164	Pfkip	Phosphofructokinase, platelet
		Ehbp1	EH domain binding protein 1	Cldnd1	Claudin domain containing 1	Pitpnm3	PITPNM family member 3
		Epb4.1	Erythrocyte protein band 4.1	Cnpy3	Canopy 3 homolog	Pkp4	Plakophilin 4
		Gm2382	5, 10-methenyltetrahydrofolate synthetase; predicted gene 2372	Col4a3bp	Collagen, type IV, alpha 3 binding protein	Plekhb1	Pleckstrin homology domain containing, family B 1
		Gm672	Similar to Gene model 672, (NCBI); predicted gene 672	Crebl2	Camp responsive element binding protein-like 2	Ppp2r3c	Protein phosphatase 2, regulatory subunit B'', gamma
		Gmps	Guanine monphosphate synthetase; predicted gene 7282	Dlg4	Discs, large homolog 4	Os9	Amplified in osteosarcoma
		Ilf3	Interleukin enhancer binding factor 3	Dpp3	Dipeptidylpeptidase 3	Ppp6r2	Protein phosphatase 6, regulatory subunit 2
		Maz	MYC-associated zinc finger protein (purine-binding transcription factor)	Eno2	Enolase 2, gamma neuronal	Pppde2	PPPDE peptidase domain containing 2
		Mettl3	Methyltransferase like 3	Nufip2	Nuclear fragile X mental retardation protein interacting protein 2	Ptcd3	Pentatricopeptide repeat domain 3
		Mthfs	5, 10-methenyltetrahydrofolate synthetase	Opn1mw	Opsin 1 (cone pigments), medium-wave-sensitive	Rab28	RAB28, member RAS oncogene family
		Nrcam	Neuron-glia-CAM-related cell adhesion molecule	Fam177a	Family with sequence similarity 177, member A	Ralgapa1	Gtpase activating RANGAP domain-like 1
		Pan3	PAN3 poly a specific ribonuclease subunit homolog	Fam57b	Family with sequence similarity 57, member B	Rufy3	RUN and FYVE domain containing 3
		Pdk1	Pyruvate dehydrogenase kinase, isoenzyme 1	Fbxo3	F-box protein 3	Sag	Retinal S-antigen
		Phactr4	Phosphatase and actin regulator 4	Golga2	Golgi autoantigen, golgin subfamily a, 2	Sfmbt1	Scm-like with four mbt domains 1
		Ppfibp1	PTPRF interacting protein, binding protein 1 (liprin beta 1)	Golga4	Golgi autoantigen, golgin subfamily a, 4	Slc16a3	Solute carrier family 16 member 3

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Prkcsh	Protein kinase C substrate 80K-H	Epb4.1l3	Erythrocyte protein band 4.1-like 3	
Prom1	Prominin 1	Gbp1	GC-rich promoter binding protein 1	
R3hdm2	R3H domain containing 2	Gpr85	G protein-coupled receptor 85	
Rho	Rhodopsin	Gtf2ird1	General transcription factor II I repeat domain-containing 1	
Sfrs14	Splicing factor, arginine/serine-rich 14	Heg1	HEG homolog 1	
Smarcc2	SWI/SNF related, matrix associated, actin dep. Regulator of chromatin, C	Immt	Inner membrane protein, mitochondrial	
Tmpo	Thymopoietin	Ip6k2	Hypothetical protein LOC100044300; inositol hexaphosphate kinase 2	
Unc45a	Unc-45 homolog A	Iqsec3	IQ motif and Sec7 domain 3	
Zfp687	Zinc finger protein 687	Itsn2	Intersectin 2	
Zmym3	Zinc finger, MYM-type 3	Jmjd6	Jumonji domain containing 6	
			Srp54a	Signal recognition particle 54a
			Srpk2	Serine/arginine-rich protein specific kinase 2
			Srsf7	Serine/arginine-rich splicing factor 7
			Tacc2	Transforming, acidic coiled-coil containing protein 2
			Tlk2	Predicted gene 13161; tousled-like kinase 2
			Trip12	Thyroid hormone receptor interactor 12
			Ypel3	Yippee-like 3
			Zc3h11a	Zinc finger CCCH type containing 11A
			Zdhc2	Zinc finger, DHHC domain containing 2
			Zfp207	Zinc finger protein 207
			Zfp740	Zinc finger protein 740
			Zfp788	Zinc finger protein 788
			Zfp97	Zinc finger protein 97
			Zmynd8	Zinc finger, MYND-type containing 8
			Zscan29	Zinc finger SCAN domains 29

\*Treatment 1 = diabetic plus murine RAGE-Fc fusion protein, Treatment 2= diabetic plus p38 MAPK inhibitor PHA666859.