

**Supplemental table 1. Identified plasma metabolites and proteins that significantly react upon a postprandial challenge, grouped according to 6 discrete time course profiles**

Time course profile	#	Parameter
1	1	1,5-Anhydro-D-Glucitol
	2	C18:1 Glycerol ester
	3	C16:0 Glycerol ester
	4	4-Deoxyglucose
	5	C10:0 Fatty acid
	6	D-glucose peak 1
	7	Glutamic acid
	8	alpha-Aminoadipic acid
	9	Lactose
	10	D-glucose peak 2
	11	Sucrose
	12	D-Glucose <sup>#</sup>
	13	D-Glucose <sup>#</sup>
	14	D-glucose peak 3
	15	Urea
	16	Total Triglycerides*
	17	Glucose*
	18	Apolipoprotein CIII
	19	PYY
2	1	N-carboxyproline

	2	2-Hydroxybutanoic acid
	3	2-Hydroxypiperidine
	4	5-oxoproline #
	5	3-Amino-2-piperidinon
	6	3-Methyl-2-oxo-valeric acid
	7	3-Methylhistidine
	8	4-hydroxyglutamate semialdehyde #
	9	4-methyl-2-oxovaleric acid
	10	Alanine
	11	alpha-Ketoglutaric acid
	12	Citric acid
	13	Creatinine
	14	Fructose
	15	Glutamine degr. internal amide
	16	Asparagine
	17	Glutamine
	18	Histidine
	19	Isoleucine
	20	Leucine
	21	Lysine
	22	Methionine
	23	Ornithine
	24	Phenylalanine
	25	Proline

	26	Serine
	27	Threonine
	28	Tryptophan
	29	Tyrosine
	30	Valine
	31	N-carboxyl-alanine
	32	Pyruvic acid
	33	Sarcosine
	34	Lysine
	35	Glutamine #
	36	4-hydroxyglutamate semialdehyde #
	37	Insulin*
	38	GLP-1 active
	39	Insulin
	40	Pancreatic polypeptide
3	1	2,3,4-trihydroxybutanoic acid
	2	Aminomalonic acid
	3	C22:6 Fatty acid
	4	Cholesterol
	5	Glycine
	6	Hexadecanoic-methylester
	7	SM(d18:1/17:0)
	8	SM(d18:2/24:0) & SM(18:2/24:1)
	9	Vitamin E

	10	Apolipoprotein A1
	11	Apolipoprotein H
	12	Complement 3
	13	CTGF
	14	EGF-R
	15	Fibrinogen
	16	Haptoglobin
	17	IgA
	18	Progesterone
	19	Serum Amyloid P
	20	SHBG
	21	Tenascin C
	22	Testosterone
	23	Thyroid Stimulating Hormone
	24	Thyroxine Binding Globulin
4	1	2,4-Dihydroxybutanoic acid
	2	N-methyl-4-hydroxyproline
	3	Xylose
	4	Erythronic acid
	5	Inositol
	6	Arabinose
	7	4-Hydroxyproline
	8	Lactic acid
	9	Meso-erythritol

	10	Myo-inositol
	11	Pseudo uridine
	12	Lactic acid
	13	Uric acid
	14	Cortisol
	15	Factor VII
	16	MMP-2
	17	TNF RII
	18	VCAM-1
5	1	2-Amino-1-butyric acid
	2	C12:0 Fatty acid
	3	C14:0 Fatty acid
	4	Monomethylphosphate
	5	Inositol cyclic phosphate
	6	Myo-inositolphosphate
	7	sn-Glycerol-3-Phosphate
	8	Il-6*
	9	EN-RAGE
	10	MIP-1beta
	11	MMP-9
	12	Myeloperoxidase
6	1	3-Hydroxybutanoic acid
	2	Acetoacetic acid peak 1
	3	Acetoacetic acid peak 2

	4	Arachidonic acid
	5	Beta-Alanine
	6	C16:0 fatty acid
	7	C16:1 fatty acid
	8	C17:0 Fatty acid
	9	C18:0 fatty acid
	10	C18:1 fatty acid
	11	C18:2 fatty acid
	12	Mannose
	13	C18:2 LPC
	14	Glycerol
	15	Succinic acid
	16	Total Free Fatty Acids*
	17	IL-8
	18	MDC

\* Clinical chemistry markers

# Annotated metabolites, but not confirmed by measuring reference substances