

Supplementary information for

Avian Influenza Virus Infection Risk in Humans with Chronic Diseases

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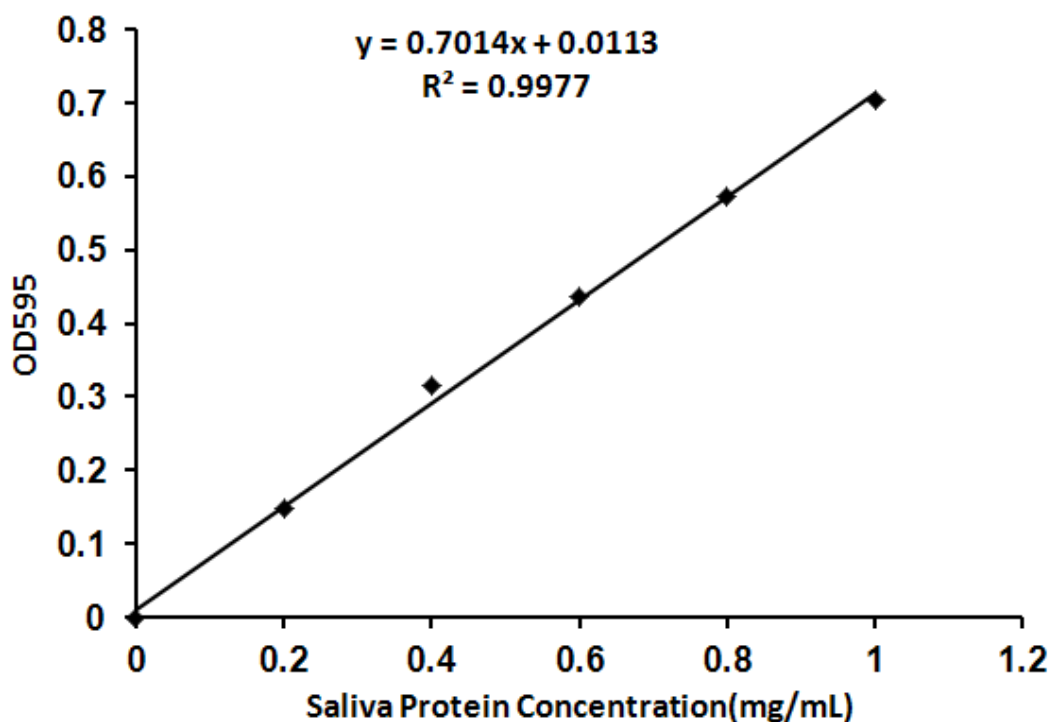
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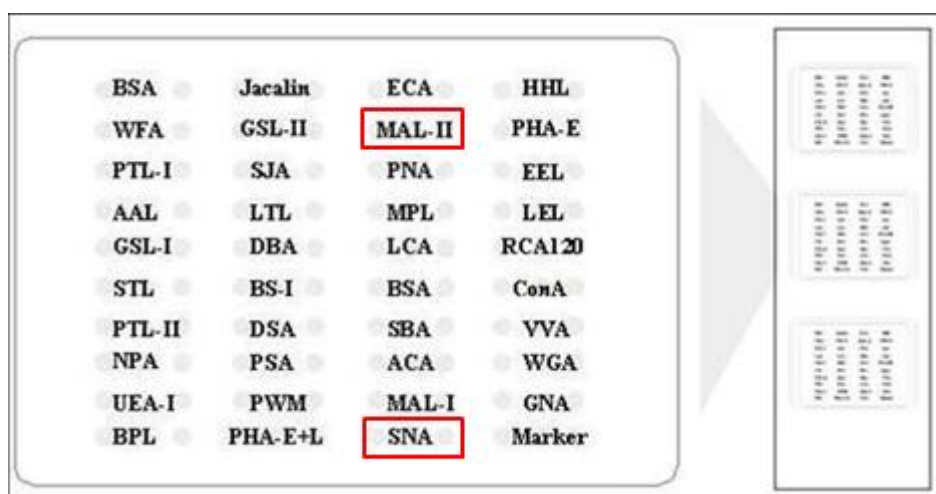
Supplementary Figure S1 to S2

Supplementary Table S1 to S3

Supplementary Figures and Tables :



Supplementary Figure S1. (A) Whole Saliva Protein Concentration. The whole saliva protein concentrations of T2DM, HB, HC, HCC and GC patients as well as healthy groups were measured using the Bradford assay.



Supplementary Figure S2. The layout of Lectin microarray.

Supplementary Table S1. The clinical and demographic characteristics of T2DM patients and healthy groups.

Parameter		Healthy groups	T2DM	Bradford assay			
				OD ₅₉₅		PC (mg/mL)	
Sample number(n)		60	64	H	D	H	D
Gender	male	50	30	0.546	0.596	0.752	0.834
	female	50	34	0.523	0.645	0.730	0.903
Age, years, median, SD		57±10.3	57±11.3				
HbA1c(%)	4-6	60(100%)	—				
	>9	—	28(43.8%)				
	>10	—	36(56.2%)				
OGTT(mmol/L)	0.5-1h	7.8-9.0	Negative	Positive			
	2h	<7.8					
	>3h	3.9-6.1					
FBG (mmol/L)		3.9-6.1	6.8-11				
Lectin	specificity	Male, NFI±SD ^a		Female, NFI±SD ^a		Fold change	
		MH	MD	FH	FD	MD/MH	FD/FH
SNA	Siaα2-6Gal/GalNAc	0.0140 ±0.0030	0.0200 ±0.0041	0.0131 ±0.0010	0.0232 ±0.0070	1.43*	1.77**
MAL-II	Siaα2-3Galβ1-4Glc(NAc)/Glc, Siaα2-3Gal, Siaα2-3, Siaα2-3GalNAc	0.0141 ±0.0040	0.0041 ±0.0090	0.0120 ±0.0010	0.0071 ±0.0042	0.291***	0.592*

H: healthy groups, D: T2DM patients, MH: male healthy groups, FH: female healthy groups, MD: male T2DM patients, FD: female T2DM patients, a: Normalized fluorescent intensities (NFI) obtained for 9 repeated blocks in three repeated slides were averaged and its SD was counted. PC: Protein Concentration, * $P<0.05$, ** $P<0.01$, *** $P<0.001$

Supplementary Table S2. The clinical and demographic characteristics of HB, HC, and HCC patients and healthy groups.

Parameter		Healthy groups	HB	HC	HCC	Fold change		
Sample number (n) /male		33	36	37	32	HB/H	HC/H	HCC/H
Age, years, median, SD		65±7.2	62±9.5	61±11.7	65±7.6			
Bradford assay	OD ₅₉₅	0.549	0.676	0.658	0.698			
	PC(mg/mL)	0.767	0.945	0.922	0.979			
Log (HBV DNA) (copies/mL)		—	6.84 ±2.02	5.17 ±3.77	4.21 ±1.18			
ALT(IU/mL), median, (range)		0-40	110 (10.3-58.8)	30.3 (27.4-157)	23.2 (33.0-127)			
AST(IU/mL), median, (range)		0-40	73.5 (14.1-64.4)	55.6 (18.3-126)	52.4 (24.1-254)			
AFP(µg/L), median, (range)		0-25	36.1 (7.50-29.8)	89.5 (27.6-104)	584 (17.0-271)			
Lectin	specificity	NFI±SD ^a						
SNA	Siaα2-6Gal/Gal NAc	0.0139 ±0.0090	0.0318 ±0.0011	0.0196 ±0.0003	0.0185 ±0.0020	2.29 ^{**}	1.41 ^{**}	1.33 [*]
MAL-II	Siaα2-3Galβ1-4 Glc(NAc)/Glc, Siaα2-3Gal, Siaα2-3, Siaα2-3GalNAc	0.0089 ±0.0005	0.0038 ±0.0008	0.0039 ±0.0007	0.0043 ±0.0040	0.427 [*]	0.438 ^{***}	0.483 [*]

HB: Hepatitis B patients, HC: Hepatic cirrhosis patients, HCC: Hepatocellular carcinoma patients,
a: Normalized fluorescent intensities (NFI) obtained for 9 repeated blocks in three repeated slides were averaged and its SD was counted, PC: Protein Concentration, **P*<0.05, ***P*<0.01, ****P*<0.001

Supplementary Table S3. The clinical and demographic characteristics of GC patients and healthy groups.

Parameter		Healthy groups	GC	Bradford assay			
				OD ₅₉₅		PC (mg/mL)	
Sample number(n)		64	70	H	G	H	G
Gender	male	30	30	0.493	0.620	0.687	0.868
	female	34	40	0.528	0.646	0.737	0.905
Age, years, median, SD		57±11.6	57±11.3				
Tumor size (cm)	<2	—	18(25.0%)				
	2-5		29(41.7%)				
	>5		23(33.3%)				
TMN classification	I, II	—	27(38.9%)				
	III, IV		43(61.1%)				
Microvascular invasion	NO	—	49(69.4%)				
	Yes		21(30.6%)				
Histology	Well	—	19(27.8%)				
	Moderate	—	45(63.9%)				
	Poor	—	6(8.3%)				
Lectin specificity		NFI±SD ^a				Fold change	
		MH	MG	FH	FG	MG/MH	FG/FH
SNA	Siaα2-6Gal/GalNAc	0.0415 ±0.0008	0.0325 ±0.0020	0.0370 ±0.0091	0.0400 ±0.0020	0.783*	1.08***
MAL-II	Siaα2-3Galβ1-4Glc(NAc)/Glc, Siaα2-3Gal, Siaα2-3, Siaα2-3GalNAc	0.0345 ±0.0031	0.0256 ±0.0042	0.0320 ±0.0051	0.0288 ±0.0031	0.742**	0.900*

MH: male healthy groups, FH: female healthy groups, MG: male GC patients, FG: female GC patients, a: Normalized fluorescent intensities (NFI) obtained for 9 repeated blocks in three repeated slides were averaged and its SD was counted, PC: Protein Concentration, * $P<0.05$, ** $P<0.01$, *** $P<0.001$