

# Determination of the quality of lipoproteins by Raman Spectroscopy in obese and healthy subjects

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## Supplementary Information

Peak (cm <sup>-1</sup> )	Range (cm <sup>-1</sup> )	Assignment	P-value VLDL	P-value LDL	P-value HDL
700	Band 697-703	Cholesterol	0.0249 (*)	0.5967	0.0397 (*)
717	Band 711-718	Phosphatidylcholine	0.2994	0.2654	0.0012 (**)
960	Band 955-960	Trans C=C	0.0209 (*)	0.0089 (**)	0,00028 (***)
1271	Band 1266-1271	C=C lipids	0.2912	0.0021 (**)	0.0124 (*)
1300	Band 1298 -1303	Triglycerides	0.0673	0.0404 (*)	0.2106
1525	Band 1520-1525	Carotenoids	0.1784	0.0073 (**)	0.04099 (*)
1656	Band 1655-1660	Cis C=C	0.5784	0.0098 (**)	0.6343
2851/2930	Band 2851-2855/ Band 2929-2935	CH <sub>2</sub> Lipids/ CH <sub>2</sub> Proteins	0.2686	0.0096 (**)	0.3181

S1: Spectral measurement ranges for peaks analyzed

Parameters	OB	OB + SM	OB +T2DM
Number, sex	13 (6F;7M)	15 (7F;8M)	11 (4F;7M)
Age, years	46,4 ± 9,3	48,3 ± 11,5	50,6 ± 9,3
Weight, Kg	115,6 ± 27,5	119,6 ± 26,7	119,4 ± 19,1
BMI kg/m <sup>2</sup>	41,8 ± 7,3	40,2 ± 8,7	42,3 ± 8,6
Waist circumference, cm	121,5 ± 9,9	126,8 ± 17,4	124,6 ± 17,1
Hips circumference, cm	127,1 ± 16,8	126,1 ± 17,5	134,1 ± 19,3
Total cholesterol, mg/dL	188,8 ± 33,2	188,9 ± 24	207,4 ± 22,3
HDL-C, mg/dL	52,9 ± 10,1	41 ± 7,7	44,4 ± 10,2
LDL-C, mg/dL	125,2 ± 31,2	141,4 ± 27,1	143,6 ± 20,4
Triglycerides, mg/dL	112,2 ± 38,5	151,2 ± 60,8	136,1 ± 42,5
Glycemia, mg/dL	89 ± 10,4	97,8 ± 18,1	128,5 ± 23,7

S2. Clinical parameters of all subjects recruited