

Supplementary Table 2 Optimized scheduled SRM assay for the 13/46 targeted proteins/peptides. The protein accession number corresponds to the one extracted from the MetaHit Database. For each peptide, at least three transitions were monitored to identify the targeted peptides. The relative quantification was done on the best transitions(*), i.e. with no interfering signals and having coefficients of variation lower than 20%. Collision energy was calculated using the following equation: CE=0.03 x (Precursor ion m/z) + 2.905. Transitions were monitored during a 7 minute window centered at the expected retention time and split into 2 acquisition methods (1) or (2).

Protein Name	Protein Accession Number	Peptide Sequence (SRM Method number)	Light		Heavy		Collision Energy (V)	Retention Time (min)
			Precursor m/z (charge)	Product m/z (Ion type, charge)	Precursor m/z (charge)	Product m/z (Ion type, charge)		
AhpC COG0450 Bacteroides	215822	AWHDASESIR (1)	586.278169 (2+)	662.34678 (y6, 1+) 777.373723 (y7, 1+) 914.432635 (y8, 1+)*	591.282303 (2+)	672.355049 (y6, 1+) 787.381992 (y7, 1+) 924.440904 (y8, 1+)*	20,5	17,2
		GTFVFNPEGK (1)	524.277106 (2+)	544.272552 (y5, 1+)* 643.340966 (y6, 1+) 742.40938 (y7, 1+)	528.284206 (2+)	552.286751 (y5, 1+)* 651.355165 (y6, 1+) 750.423579 (y7, 1+)	18,6	22
		LAEIQDNSIGR (1)	608.320033 (2+)	661.326378 (y6, 1+) 789.384956 (y7, 1+) 902.46902 (y8, 1+)*	613.324168 (2+)	671.334647 (y6, 1+) 799.393225 (y7, 1+) 912.477289 (y8, 1+)*	21,2	20,8
ClpB COG0542 Bacteroides	1562586	VVGQDEAIAVSDAVR (1)	800.420476 (2+)	972.54727 (y10, 1+) 911.518426 (y9, 1+) 788.426093 (y8, 1+)*	805.42461 (2+)	982.555539 (y10, 1+) 901.510157 (y9, 1+) 798.434362 (y8, 1+)*	26,9	30,4
		YAINLINEAR (1)	567.798737 (2+)	560.2787 (y5, 1+) 673.362764 (y6, 1+)* 787.405691 (y7, 1+)*	572.802871 (2+)	570.286969 (y5, 1+) 683.371033 (y6, 1+)* 797.413396 (y7, 1+)*	19,9	24,7
DnaK COG0443 Bacteroides	1624002	GVPQIEVTFDIDANGILK (1)	965.020023 (2+)	1105.588801 (y10, 1+)* 1206.636479 (y11, 1+) 886.975084 (y16, 2+)*	969.027122 (2+)	1113.603 (y10, 1+)* 1214.650678 (y11, 1+) 890.982183 (y16, 2+)*	31,9	42,3
		IVNEPTAAALAYLSDK (2)	823.44342 (2+)	327.202681 (b3, 1+) 666.345717 (y6, 1+)* 850.466895 (y8, 1+) 921.504009 (y9, 1+)*	827.450519 (2+)	327.202681 (b3, 1+) 674.359916 (y6, 1+)* 858.481094 (y8, 1+) 929.518208 (y9, 1+)*	27,6	32,1
		SIGQFNLTGIAPAR (1)	722.898982 (2+)	1059.594555 (y10, 1+)* 685.399149 (y7, 1+) 912.526141 (y9, 1+)	727.903117 (2+)	1069.602824 (y10, 1+)* 695.407418 (y7, 1+) 922.53441 (y9, 1+)	24,6	33,6
FusA COG0480 Bacteroides	724132	FASYELVPTDVQEK (2)	813.406503 (2+)	816.409774 (y7, 1+) 915.478188 (y8, 1+)* 1028.562252 (y9, 1+)*	817.413602 (2+)	824.423973 (y7, 1+) 923.492387 (y8, 1+)* 1036.576451 (y9, 1+)*	27,3	30
		GTEEIPLEWGGK (2)	658.330067 (2+)	417.161605 (b4, 1+) 447.235044 (y4, 1+)* 786.414465 (y7, 1+)	662.337166 (2+)	417.161605 (b4, 1+) 455.249243 (y4, 1+)* 794.428664 (y7, 1+)	22,7	31
		ILEPIYDEVFVPSDK (1)	931.992942 (2+)	943.513511 (b8, 1+)* 1134.567731 (y10, 1+)* 1297.63106 (y11, 1+)* 920.472374 (y8, 1+)*	936.000042 (2+)	943.513511 (b8, 1+)* 1142.58193 (y10, 1+)* 1305.645259 (y11, 1+)* 928.486573 (y8, 1+)*	30,9	41,9
		NIALLGNDGSGK (1)	579.809302 (2+)	931.484336 (y10, 1+)* 634.279094 (y7, 1+)* 747.363158 (y8, 1+)*	583.816401 (2+)	939.498535 (y10, 1+)* 642.293293 (y7, 1+)* 755.377357 (y8, 1+)*	20,3	25,3
		VHEGDLLTNADR (2)	671.305112 (2+)	237.134602 (b2, 1+) 1105.475622 (y10, 1+)* 689.357679 (y6, 1+) 976.433028 (y9, 1+)*	676.309246 (2+)	237.134602 (b2, 1+) 1115.483891 (y10, 1+)* 699.365948 (y6, 1+) 986.441297 (y9, 1+)*	23	13,4
GapA COG0057 Prevotella	2596432	GILGYTEDK (1)	498.255839 (2+)	655.293347 (y5, 1+) 712.314811 (y6, 1+) 825.398875 (y7, 1+)*	502.262939 (2+)	663.307546 (y5, 1+) 720.32901 (y6, 1+) 833.413074 (y7, 1+)*	17,9	23,2
		VPTLDVSVVLTNLK (1)	856.495652 (2+)	1087.635751 (y10, 1+)* 901.535309 (y8, 1+)* 1000.603723 (y9, 1+)*	860.502752 (2+)	1095.64995 (y10, 1+)* 909.549508 (y8, 1+)* 1008.617922 (y9, 1+)*	28,6	42,2
		VVSWYDNEIGVSHK (1)	848.901919 (2+)	1225.548393 (y10, 1+) 371.203744 (y3, 1+) 591.288536 (y5, 1+)*	852.909018 (2+)	1233.562592 (y10, 1+) 379.217943 (y3, 1+) 599.302735 (y5, 1+)*	28,4	27,8
GP2 Homo sapiens	sp P55259	C[+57]LLGGLGLGEEVIAYLR (2)	917.000579 (2+)	1162.64665 (y10, 1+) 992.541122 (y8, 1+) 1049.562586 (y9, 1+)*	922.004713 (2+)	1172.654919 (y10, 1+) 1002.549391 (y8, 1+) 1059.570855 (y9, 1+)*	30,4	49,6
		LEGTPWC[+57]NLR (2)	623.305872 (2+)	748.355905 (y5, 1+) 845.408669 (y6, 1+)* 1003.477811 (y8, 1+)*	628.310006 (2+)	758.364174 (y5, 1+) 855.416938 (y6, 1+)* 1013.48608 (y8, 1+)*	21,6	29
		NTLSLVNDFIIR (2)	702.895908 (2+)	777.425364 (y6, 1+)* 876.493778 (y7, 1+)* 989.577842 (y8, 1+)*	707.900043 (2+)	787.433633 (y6, 1+)* 886.502047 (y7, 1+)* 999.586111 (y8, 1+)*	24	41,8
		NWVSVTSPVQASAC[+57]R (1)	831.406846 (2+)	1076.515319 (y10, 1+)* 1262.615761 (y12, 1+)* 975.46764 (y9, 1+)*	836.41098 (2+)	1086.523588 (y10, 1+)* 1272.62403 (y12, 1+)* 985.475909 (y9, 1+)*	27,8	27,9
KorA COG0674,COG1014 Bacteroides	707721	GQPFVSELVDAFTEILNK (1)	1053.559512 (2+)	1149.615016 (y10, 1+)* 1262.69908 (y11, 1+) 961.019491 (y17, 2+)*	1057.566612 (2+)	1157.629215 (y10, 1+)* 1270.713279 (y11, 1+) 965.026591 (y17, 2+)*	34,5	50,3
		LFSGSYPTPATDILHELSK (1)	1108.104087 (2+)	1223.663028 (y11, 1+)* 1324.710707 (y12, 1+) 767.927405 (y14, 2+)	1112.111186 (2+)	1231.677227 (y11, 1+)* 1332.724906 (y12, 1+) 771.934505 (y14, 2+)	36,1	46,1
PepD COG2195 Bacteroides	377760	GGHSGLEINEGR (2)	613.299632 (2+)	588.31 (y5, 1+) 887.458121 (y8, 1+)* 974.490149 (y9, 1+)	618.303767 (2+)	598.318269 (y5, 1+) 897.46639 (y8, 1+)* 984.498418 (y9, 1+)	21,3	16,5
		SGGYSGWEPNVDSPIPK (2)	903.438866 (2+)	1111.599366 (y10, 1+)* 470.333696 (y4, 1+) 982.556772 (y9, 1+)*	907.445965 (2+)	1119.613565 (y10, 1+)* 478.347895 (y4, 1+) 990.570971 (y9, 1+)*	30	33,2
		SVGVESFQDEAGNIYR (2)	942.460329 (2+)	1178.580027 (y10, 1+)* 806.451913 (y7, 1+)* 1050.52145 (y9, 1+)*	947.464464 (2+)	1188.588296 (y10, 1+)* 816.460182 (y7, 1+)* 1060.529719 (y9, 1+)*	31,2	33,4
Pfk COG0205 Bacteroides	182951	ENSEIYASLPEGVAR (1)	817.904659 (2+)	1062.557835 (y10, 1+)* 628.3413 (y6, 1+) 828.457393 (y8, 1+)*	822.908793 (2+)	1072.566104 (y10, 1+)* 638.349569 (y6, 1+) 838.465662 (y8, 1+)*	27,4	28,3
		NTGGFDIIGSGR (1)	597.299101 (2+)	978.50032 (y10, 1+)* 489.277972 (y5, 1+)* 602.362036 (y6, 1+)*	602.303236 (2+)	988.508589 (y10, 1+)* 499.286241 (y5, 1+)* 612.370305 (y6, 1+)*	20,8	27,7
		TYSEVIGNIQR (2)	640.335684 (2+)	587.325985 (y5, 1+)* 700.410049 (y6, 1+)* 1015.553084 (y9, 1+)	645.339818 (2+)	597.334254 (y5, 1+)* 710.418318 (y6, 1+)* 1025.561353 (y9, 1+)	22,1	24,6

surface Bacteroidales	1939312	ADQATVTALEAR (1)	623.325316 (2+)	660.367515 (y6, 1+) 759.435929 (y7, 1+)* 860.483607 (y8, 1+)	628.32945 (2+)	670.375784 (y6, 1+) 769.444198 (y7, 1+)* 870.491876 (y8, 1+)	21,6	21,3
		DNTTDDIYSENSR (2)	758.331523 (2+)	592.268529 (y5, 1+) 755.331858 (y6, 1+)* 1084.490543 (y9, 1+)*	763.335658 (2+)	602.276798 (y5, 1+) 765.340127 (y6, 1+)* 1094.498812 (y9, 1+)*	25,7	17,2
		EDAWNLINPLAQADEK (2)	913.949597 (2+)	1098.578964 (y10, 1+)* 871.451973 (y8, 1+) 985.4949 (y9, 1+)*	917.956697 (2+)	1106.593163 (y10, 1+)* 879.466172 (y8, 1+) 993.509099 (y9, 1+)*	30,3	39,5
		VEALESIDIATIR (2)	750.917038 (2+)	1088.594615 (y10, 1+)* 759.435929 (y7, 1+)* 959.552021 (y9, 1+)*	755.921172 (2+)	1098.602884 (y10, 1+)* 769.444198 (y7, 1+)* 969.56029 (y9, 1+)*	25,4	36,4
		VQAEGLDQATFEK (1)	718.356813 (2+)	1137.542245 (y10, 1+)* 1208.579358 (y11, 1+)* 1008.499651 (y9, 1+)	722.363912 (2+)	1145.556444 (y10, 1+)* 1216.593557 (y11, 1+)* 1016.51385 (y9, 1+)	24,5	23,6
		YDVC[+57]LIAPIR (1)	610.328816 (2+)	569.376957 (y5, 1+)* 682.461021 (y6, 1+)* 842.49167 (y7, 1+)*	615.33295 (2+)	579.385226 (y5, 1+)* 692.46929 (y6, 1+)* 852.499939 (y7, 1+)*	21,2	33,6
TktA-TktB COG0021 Bacteroides	513615	LAMENTSTPTALIFSR (1)	876.453461 (2+)	1092.604785 (y10, 1+)* 904.525078 (y8, 1+)* 1005.572757 (y9, 1+)	881.457596 (2+)	1102.613054 (y10, 1+)* 914.533347 (y8, 1+)* 1015.581026 (y9, 1+)	29,2	35,6
		LGFTAQNVYVYQVK (1)	741.39099 (2+)	488.282723 (y4, 1+) 651.346051 (y5, 1+)* 864.457393 (y7, 1+)*	745.39809 (2+)	496.296922 (y4, 1+) 659.36025 (y5, 1+)* 872.471592 (y7, 1+)*	25,1	28,9
		NLGGDPTNPFQIFPEVK (1)	936.978158 (2+)	472.276575 (y4, 1+)* 619.344989 (y5, 1+)* 1104.608808 (y9, 1+)	940.985257 (2+)	480.290774 (y4, 1+)* 627.359188 (y5, 1+)* 1112.623007 (y9, 1+)	31	40,7
		VITIDGNPDPAIR (2)	699.864805 (2+)	571.319837 (y5, 1+) 857.411171 (y8, 1+)* 972.438114 (y9, 1+)	704.86894 (2+)	581.328106 (y5, 1+) 867.41944 (y8, 1+)* 982.446383 (y9, 1+)	23,9	25,4
TonB Bacteroides	1861838	ASFTGAAAIIGEDVIAK (1)	817.44342 (2+)	1028.598637 (y10, 1+) 731.393395 (y7, 1+)* 844.477459 (y8, 1+)*	821.450519 (2+)	1036.612836 (y10, 1+) 739.407594 (y7, 1+)* 852.491658 (y8, 1+)*	27,4	37,1
		DGSSVFGSNHR (1)	581.765425 (2+)	570.274283 (y5, 1+) 717.342697 (y6, 1+)* 816.411111 (y7, 1+)	586.76956 (2+)	580.282552 (y5, 1+) 727.350966 (y6, 1+)* 826.41938 (y7, 1+)	20,4	14,9
		YPQYIYGDPNK (2)	679.324785 (2+)	358.208495 (y3, 1+) 693.32023 (y6, 1+)* 969.467623 (y8, 1+)	683.331884 (2+)	366.222694 (y3, 1+) 701.334429 (y6, 1+)* 977.481822 (y8, 1+)	23,3	23,5
type 1 dockerin Ruminococcus	1622487	DVEVYIVGTGNYSGR (1)	814.899376 (2+)	1023.521784 (y10, 1+)* 1186.585112 (y11, 1+)* 910.43772 (y9, 1+)*	819.903511 (2+)	1033.530053 (y10, 1+)* 1196.593381 (y11, 1+)* 920.445989 (y9, 1+)*	27,4	29,5
		FVSGTTNVNLSTSDYK (1)	866.923048 (2+)	613.282782 (y5, 1+) 700.314811 (y6, 1+)* 927.441802 (y8, 1+)*	870.930148 (2+)	621.296981 (y5, 1+) 708.32901 (y6, 1+)* 935.456001 (y8, 1+)*	28,9	24,4
		NAGEATVTVGVK (1)	573.311677 (2+)	960.536037 (y10, 1+)* 703.434866 (y7, 1+) 774.47198 (y8, 1+)	577.318777 (2+)	968.550236 (y10, 1+)* 711.449065 (y7, 1+) 782.486179 (y8, 1+)	20,1	17,8
		VNVVVGDATVTLAPVK (2)	798.951412 (2+)	214.118617 (b2, 1+) 1071.604451 (y11, 1+)* 343.233982 (y3, 1+) 414.271095 (y4, 1+)*	802.958511 (2+)	214.118617 (b2, 1+) 1079.61865 (y11, 1+)* 351.248181 (y3, 1+) 422.285294 (y4, 1+)*	26,9	31
		YFNNITGPK (2)	527.271824 (2+)	629.361701 (y6, 1+) 743.404629 (y7, 1+) 890.473043 (y8, 1+)*	531.278923 (2+)	637.3759 (y6, 1+) 751.418828 (y7, 1+) 898.487242 (y8, 1+)*	18,7	22,5