

Supplementary Table S2: Targeted amino acid quantification data of HC2, AH and ALC groups

Name	Gly	Ala	ser	Pro	Val	Thr	Ile	Asn	Glu	Met	Phe	Tyr	Try	Asp	Lys	Gln	Leu	Arg	Orn	Cit	His
ALC1	179.56	395.46	144.13	357.50	141.13	84.61	132.38	33.08	175.29	35.53	100.71	75.74	36.01	34.32	147.34	311.49	131.76	29.41	33.02	41.88	36.60
ALC2	243.14	459.46	164.71	211.83	131.82	91.33	104.75	19.69	172.13	43.15	121.50	112.92	67.07	39.59	1141.07	1221.66	105.96	66.49	47.65	8.94	0.00
ALC3	247.65	537.01	228.05	324.09	254.21	127.63	200.71	49.41	158.44	66.92	199.86	139.17	106.73	77.27	961.71	961.76	199.95	177.06	0.00	17.19	0.00
ALC4	195.96	325.35	153.30	263.10	149.42	135.80	130.13	32.95	93.41	32.08	103.64	49.53	25.44	30.51	195.49	731.03	130.40	16.77	33.45	10.47	0.00
ALC5	164.78	188.17	109.43	163.63	108.96	72.76	92.44	26.58	131.04	30.95	77.40	60.83	28.71	58.97	634.95	701.54	93.28	61.27	0.00	12.33	53.57
ALC6	249.94	243.55	71.51	283.55	150.13	299.59	129.15	19.70	100.00	61.35	174.46	183.07	62.81	46.72	992.32	1026.11	130.94	149.00	86.73	12.41	30.98
ALC7	374.27	722.61	187.43	499.51	293.88	188.46	229.14	73.05	135.75	247.72	291.53	287.30	67.60	16.89	248.96	2309.88	226.47	470.74	36.13	67.89	20.46
ALC8	353.48	519.07	204.83	229.77	284.66	207.28	196.46	79.65	166.99	38.56	186.15	120.14	86.76	296.14	249.97	39.89	196.09	26.42	53.97	10.87	39.00
ALC9	190.79	445.17	145.86	314.97	132.57	133.93	105.34	34.07	178.91	25.64	83.39	47.44	42.16	253.70	261.92	318.21	105.91	53.73	34.29	15.42	63.99
ALC10	125.43	245.52	97.72	196.25	147.30	78.49	108.76	41.98	96.71	32.37	100.98	89.27	58.67	154.04	766.91	652.23	110.55	45.32	33.72	8.31	99.71
ALC11	205.71	243.42	132.08	267.65	156.59	117.51	112.41	24.81	110.77	23.24	111.16	71.40	0.00	118.18	575.64	469.58	112.38	101.46	33.46	11.09	56.38
ALC12	166.84	230.87	66.23	174.67	118.88	79.49	87.59	37.84	0.00	40.23	126.37	85.65	35.22	55.34	493.36	498.43	87.28	8.06	52.35	20.87	61.57
ALC13	225.86	335.95	189.90	221.67	239.44	121.35	173.45	37.55	161.41	63.95	159.26	145.90	62.87	40.02	1022.89	1331.44	174.92	122.08	0.00	22.07	0.00
ALC14	219.16	345.01	194.38	146.17	189.38	102.81	154.42	55.66	340.60	32.33	150.90	83.08	52.11	198.50	312.79	261.28	154.82	9.93	34.50	5.58	48.19
ALC15	275.65	511.75	160.52	339.16	217.71	130.10	172.46	60.12	111.83	58.58	145.67	169.53	41.92	35.18	1222.36	347.16	172.20	5.37	33.85	13.99	47.01
ALC16	132.73	203.61	127.80	152.21	186.52	69.19	116.89	24.83	227.19	23.28	70.71	46.10	27.94	0.00	673.97	843.36	118.19	7.52	33.11	2.47	77.97
ALC17	161.83	305.52	130.60	280.87	143.43	109.34	96.21	39.25	139.08	89.72	132.67	184.37	56.89	70.46	1215.01	1119.39	96.56	68.64	34.84	21.95	56.51
ALC18	205.15	440.35	210.08	375.07	242.15	124.33	159.32	74.43	113.24	35.08	134.90	111.54	73.40	0.00	1190.61	1067.18	161.03	105.34	34.01	19.95	56.79
ALC19	234.81	448.83	157.17	258.05	138.00	109.87	89.48	32.25	134.90	51.97	129.02	142.29	52.07	7.99	1855.42	1665.51	89.53	249.44	35.01	41.31	26.58
ALC20	274.59	439.27	175.60	344.98	172.36	176.61	126.52	44.34	190.89	51.59	116.72	100.35	54.04	110.71	2353.55	2045.21	127.74	51.46	35.04	20.69	110.24
ALC21	187.78	261.38	156.48	204.57	161.42	105.89	127.82	43.42	119.63	53.97	111.78	42.55	19.64	23.21	630.66	670.42	130.77	54.78	0.00	3.53	33.80
ALC22	125.51	245.27	73.88	120.31	74.11	136.68	35.62	16.81	163.97	19.17	77.72	43.79	26.87	603.68	1283.31	1250.14	35.95	5.01	0.00	151.58	103.60
ALC23	216.70	339.21	141.94	262.10	192.81	94.74	167.50	40.63	104.11	35.72	175.84	93.69	66.15	0.00	308.66	495.58	170.08	97.72	33.62	9.33	0.00
ALC24	194.99	395.00	157.15	266.63	206.93	165.07	157.38	18.93	170.34	67.78	128.10	184.75	71.81	22.38	1019.64	1133.66	158.50	82.77	0.00	2.70	0.00
ALC25	187.56	301.73	222.67	318.29	258.47	191.39	161.43	62.51	128.48	41.41	113.12	86.91	76.25	37.48	385.10	357.81	163.15	114.74	33.15	13.32	74.97
ALC26	170.36	266.77	248.57	151.66	201.48	110.24	135.06	52.31	105.80	43.53	116.81	160.48	96.02	76.23	1089.23	942.28	134.85	5.54	34.08	15.84	24.82
ALC27	189.06	416.27	232.21	303.25	230.38	176.72	150.10	54.40	251.38	64.68	144.28	181.88	96.67	108.53	2507.76	2213.27	150.77	104.97	34.20	19.24	4.58
ALC28	110.93	253.10	157.20	160.73	305.63	104.61	182.71	18.55	172.50	25.25	99.44	65.66	55.87	43.61	1220.13	836.32	179.55	27.58	33.15	0.52	84.88
ALC29	211.48	373.83	184.44	223.99	240.21	134.54	145.30	52.71	102.37	24.11	133.64	95.81	80.98	0.00	1050.74	850.98	144.00	9.19	0.00	7.74	79.69
ALC30	244.63	352.03	206.46	152.44	202.86	120.68	143.35	61.93	66.04	30.80	121.01	112.12	56.23	0.00	218.07	218.69	144.04	136.28	33.47	12.69	117.89
ALC31	174.33	361.84	149.82	260.80	176.49	113.78	100.63	30.82	76.29	45.66	186.82	134.30	84.82	3270.52	905.10	748.08	100.11	11.50	0.00	8.50	50.00
ALC32	320.82	455.02	196.86	455.52	165.89	273.13	159.65	38.08	101.31	127.05	137.78	136.79	36.76	23.65	1031.18	170.77	158.16	214.97	33.60	14.82	76.66
ALC33	327.25	413.15	213.49	412.35	231.93	217.44	160.84	33.04	111.67	83.52	365.60	308.48	112.72	0.00	1018.73	1136.95	162.60	22.11	33.26	8.22	0.00
ALC34	278.99	366.58	121.89	222.57	228.08	70.50	178.26	53.81	121.32	35.19	119.59	122.39	65.63	19.73	398.86	408.80	179.01	162.50	33.04	14.43	49.46
ALC35	165.55	220.70	124.70	255.62	107.33	63.88	87.48	7.03	111.36	36.32	127.38	105.81	44.55	27.66	550.59	695.24	88.20	73.93	33.03	6.32	64.51
ALC36	238.03	489.75	176.70	365.46	262.03	158.13	151.82	48.39	147.44	74.50	232.59	244.13	73.89	1035.98	1008.23	1186.35	153.62	144.95	34.34	28.08	8.37
ALC37	215.79	320.25	148.07	232.31	203.29	100.24	150.05	66.51	148.14	38.45	254.32	153.20	88.79	2133.89	900.88	853.48	148.23	34.26	34.78	35.25	47.83
ALC38	150.51	251.60	93.32	192.99	240.08	68.20	180.30	77.10	103.88	23.77	112.09	33.77	53.20	0.00	482.05	367.68	180.22	55.09	33.52	4.45	10.98

ALC39	187.49	348.76	113.36	304.65	159.82	103.24	117.71	51.39	112.54	37.16	99.13	94.58	49.53	213.63	588.26	583.89	116.99	106.89	34.08	15.94	110.79
ALC40	504.19	318.01	152.35	151.74	199.10	63.81	156.98	104.00	116.19	21.82	125.31	51.39	70.46	17.67	322.18	270.70	155.36	111.27	34.50	69.01	77.94
ALC41	146.21	220.51	121.02	128.91	158.53	76.45	108.19	63.32	218.08	39.62	151.71	97.61	42.49	0.00	1271.93	1084.47	109.61	85.58	33.28	32.71	41.11
ALC42	176.82	446.60	154.51	353.20	249.04	105.20	191.59	93.05	125.07	51.65	173.71	91.69	198.63	38.27	177.99	302.35	190.79	87.80	43.79	46.14	29.01
ALC43	183.09	415.42	153.63	341.24	264.56	110.46	203.44	93.96	133.54	51.26	164.54	93.41	117.38	23.27	285.38	294.07	203.39	29.66	48.36	4.20	0.00
ALC44	146.56	309.95	161.40	255.87	211.12	119.49	145.06	84.54	144.89	55.63	187.72	109.36	50.56	0.00	1575.72	1347.25	144.55	21.62	35.76	28.74	105.77
ALC45	155.32	246.09	180.35	186.83	168.83	158.29	106.86	46.60	188.65	55.36	113.21	104.05	53.02	126.39	953.58	922.71	107.75	74.60	33.57	17.25	0.00
ALC46	206.15	379.52	149.48	286.41	168.05	121.35	106.28	64.10	190.59	48.00	130.43	115.66	67.00	0.00	871.52	860.47	106.88	88.08	35.54	26.71	44.35
ALC47	175.61	202.20	129.29	261.08	132.81	88.02	80.40	29.10	162.83	63.20	96.64	125.38	53.04	0.00	871.81	837.24	79.46	60.64	34.84	23.91	108.42
ALC48	211.53	457.09	266.78	343.13	269.53	212.33	169.81	96.40	237.40	89.17	162.57	212.75	76.67	45.18	1502.29	1641.04	169.05	101.22	33.86	21.50	22.48
ALC49	126.52	259.25	122.77	134.61	221.18	89.23	148.30	75.13	176.03	23.20	60.49	47.02	41.60	35.66	802.11	981.20	146.43	47.64	33.20	16.40	105.57
ALC50	109.27	191.39	133.85	216.80	244.36	78.87	151.45	80.08	122.71	39.98	133.47	80.66	52.69	20.80	295.19	218.91	153.42	65.42	33.59	29.45	40.29
ALC51	119.24	329.07	102.28	266.69	172.76	55.67	122.52	78.15	131.02	23.12	105.51	33.38	16.94	0.00	96.05	2609.65	123.56	79.57	33.55	8.58	32.80
ALC52	214.16	426.84	185.41	309.14	261.79	115.75	216.97	114.06	204.62	30.72	121.90	94.72	67.56	82.52	149.11	128.37	221.69	7.96	0.00	4.99	127.59
ALC53	306.66	520.41	126.03	362.00	276.46	97.69	131.64	87.36	52.60	48.19	251.86	91.39	26.74	622.18	1594.87	1317.32	135.28	213.50	227.22	58.99	0.00
ALC54	163.69	276.39	150.89	268.07	196.25	136.62	128.83	73.19	106.46	80.77	199.28	179.22	40.73	66.23	1510.30	1419.76	131.92	5.80	0.00	41.56	107.92
ALC55	87.32	161.91	109.30	139.56	93.61	67.66	57.31	47.15	146.07	37.70	63.93	79.17	30.49	247.36	854.96	832.81	56.60	46.67	0.00	24.65	94.71
ALC56	151.88	210.17	92.60	280.82	184.04	77.43	145.51	100.91	197.85	31.49	127.84	54.46	21.35	34.03	282.44	76.07	146.20	111.73	34.57	15.60	205.41
ALC57	175.80	437.29	103.18	223.48	216.88	88.09	130.13	75.88	344.55	37.89	92.03	73.76	66.79	22.88	1133.51	1034.19	130.17	112.43	34.57	19.20	193.77
ALC58	119.40	274.45	115.34	244.55	246.78	84.77	153.87	98.92	127.03	35.91	114.85	66.28	61.10	59.67	301.30	280.04	153.06	74.89	44.34	26.92	110.53
ALC59	156.29	302.67	147.38	279.51	216.01	134.70	154.40	75.44	0.00	51.98	151.29	104.45	76.28	28.29	1311.90	1476.55	155.12	94.76	33.80	20.22	156.32
ALC60	104.72	171.67	70.52	220.87	131.48	71.23	100.04	15.11	210.69	31.09	65.87	70.25	0.00	379.92	1117.12	945.98	99.85	22.11	33.09	2.62	92.77
ALC61	174.95	393.98	165.68	209.78	174.08	111.86	127.61	85.95	219.39	53.55	131.98	91.74	41.15	310.50	1061.56	1278.30	129.03	13.97	36.51	33.97	54.71
ALC62	170.18	400.59	130.26	216.70	238.43	153.51	137.01	85.46	158.65	40.04	90.18	72.03	63.38	30.47	1303.07	1240.50	137.58	47.31	34.56	23.98	9.83
ALC63	151.98	340.67	180.38	375.78	188.59	148.70	120.43	11.42	196.46	47.24	106.18	114.12	58.51	15.51	1221.45	1077.46	121.25	10.03	33.06	0.58	0.00
ALC64	172.50	350.81	196.03	199.74	292.62	117.75	189.20	84.33	148.60	27.10	113.83	63.23	53.88	196.04	936.38	945.06	190.11	118.22	34.07	13.39	163.97
ALC65	154.08	351.16	159.66	241.12	160.27	69.95	91.03	64.46	150.63	25.45	154.96	78.14	33.22	62.33	810.83	1285.34	90.84	19.70	33.77	29.11	131.00
ALC66	138.30	210.58	129.48	179.87	93.82	80.67	66.41	41.18	134.54	25.37	82.56	49.29	25.67	63.24	208.59	151.39	65.76	5.07	33.20	6.23	5.71
ALC67	170.65	311.70	81.66	203.37	170.25	66.50	73.06	19.46	230.80	27.68	151.81	59.55	20.91	518.24	987.60	1949.23	75.65	58.75	70.99	18.38	86.47
ALC68	152.95	330.76	214.79	320.44	172.55	135.66	105.89	49.93	174.88	53.49	176.48	156.29	86.98	71.62	1297.08	916.29	108.66	82.07	33.36	13.58	53.47
ALC69	125.31	168.35	71.31	190.38	94.03	62.00	65.03	34.70	117.50	111.36	111.03	167.59	14.18	0.00	749.05	613.95	65.91	49.36	33.87	12.98	103.67
ALC70	67.97	183.86	65.31	265.59	273.10	70.87	172.25	140.54	131.00	24.23	95.33	62.89	47.11	223.01	721.14	11.08	175.09	39.79	0.00	17.08	66.03
ALC71	108.47	154.91	75.53	169.60	65.64	75.26	41.52	3.11	154.60	36.94	88.81	128.04	24.49	247.04	1024.30	933.65	42.03	9.15	33.19	4.18	27.30
ALC72	118.59	221.90	109.24	152.30	182.61	67.56	98.86	80.37	0.00	19.83	101.67	59.73	59.53	38.65	766.18	731.15	100.36	54.97	34.46	29.08	123.74
ALC73	208.58	272.03	145.08	256.76	177.15	115.02	120.70	58.98	140.70	52.06	213.27	157.22	66.16	0.00	1313.98	1303.96	121.52	101.41	34.06	18.41	0.00
ALC74	175.65	283.65	137.10	195.07	169.55	121.38	106.77	69.03	166.73	55.03	130.52	123.00	77.34	0.00	1647.95	1441.23	105.19	119.41	34.58	24.37	12.55
ALC75	124.77	172.19	47.08	134.93	105.19	95.12	65.11	0.00	74.05	19.36	66.65	44.86	0.00	359.92	594.31	0.00	69.97	15.07	0.00	0.00	130.44
AH1	282.54	587.44	136.23	274.53	257.54	127.98	184.26	104.24	167.86	32.46	125.86	70.33	75.15	23.61	1198.15	1099.06	182.67	84.29	34.95	25.49	138.06
AH2	213.39	432.88	172.32	248.55	255.62	110.38	145.46	98.47	201.42	27.41	94.34	48.62	59.77	110.56	453.63	765.00	147.57	26.80	34.98	22.09	0.00

AH3	198.84	296.85	111.71	169.76	216.23	93.43	123.12	80.57	158.26	20.28	71.88	37.53	37.49	33.80	846.54	888.07	125.04	94.95	33.58	29.89	0.00
AH4	216.01	395.83	214.88	202.85	255.38	102.33	147.97	82.97	126.40	33.97	119.28	53.24	80.58	278.80	632.23	1162.55	147.82	49.41	0.00	14.12	176.86
AH5	159.29	269.92	108.24	159.49	205.81	70.91	126.21	97.99	149.47	17.85	75.81	38.10	26.01	31.00	728.30	729.19	125.66	40.77	33.94	27.76	5.78
AH6	160.60	279.53	168.55	128.64	248.37	88.45	152.69	135.54	177.51	23.14	82.58	43.98	54.41	60.57	427.09	690.34	149.37	53.68	33.37	19.74	135.37
AH7	156.40	248.49	158.97	151.59	204.91	77.45	115.36	71.35	155.49	18.88	72.40	40.17	28.79	35.99	1011.59	899.03	116.93	62.71	34.75	12.28	119.32
AH8	214.96	273.74	130.31	108.17	196.01	111.57	97.40	74.40	129.89	18.45	64.76	38.55	32.05	28.37	768.07	755.34	100.28	57.71	34.39	15.56	168.41
AH9	193.49	512.11	144.97	211.52	305.52	111.80	174.35	22.00	233.17	32.88	105.09	54.63	116.52	0.00	655.33	912.18	168.75	46.60	33.24	2.72	290.16
AH10	202.23	372.27	137.84	159.00	279.71	115.70	164.44	110.43	204.74	29.18	103.33	55.82	72.91	38.65	487.16	748.01	162.71	31.58	39.43	55.22	105.43
AH11	222.44	380.86	112.93	169.15	200.86	104.26	108.91	92.24	168.69	23.96	74.50	42.11	45.64	15.85	881.12	911.79	113.92	12.62	36.21	23.22	20.39
AH12	190.99	371.55	124.46	191.21	268.91	90.87	169.69	103.55	148.62	29.14	90.14	62.01	59.85	0.00	897.62	862.80	172.25	37.99	34.24	19.47	0.00
AH13	185.49	424.31	200.53	210.12	254.48	163.19	169.73	93.88	202.58	41.25	99.96	64.11	81.88	151.31	974.98	1108.93	171.58	76.33	34.60	14.59	0.00
AH14	152.82	306.16	119.06	175.27	232.43	87.50	144.54	108.49	161.89	24.91	83.45	45.12	65.85	47.06	514.80	741.93	144.32	16.46	34.23	19.54	218.27
NC2-1	44.20	133.45	53.17	85.24	123.20	41.23	66.25	69.31	137.83	8.54	30.77	26.66	20.99	115.70	348.94	416.53	66.85	6.22	33.35	15.78	0.00
NC2-2	99.83	322.07	95.73	216.84	157.29	66.60	89.25	73.45	152.44	17.13	79.63	44.90	46.22	102.91	104.38	118.55	89.44	0.00	0.00	7.91	17.04
NC2-3	120.79	339.69	75.79	223.46	252.36	82.81	141.50	106.37	48.51	26.07	88.73	48.39	61.76	11.76	541.31	194.62	141.68	56.85	34.21	15.28	158.65
NC2-4	105.90	203.19	73.72	185.67	154.41	69.44	84.62	70.24	79.62	19.01	55.33	52.92	42.01	258.71	515.29	589.85	85.66	105.62	34.67	14.27	99.21
NC2-5	146.53	290.33	116.20	170.81	242.64	90.24	149.64	66.40	94.55	25.30	95.51	45.86	53.28	40.27	612.67	637.02	147.26	9.89	33.54	13.20	94.47
NC2-6	155.37	345.99	133.97	193.22	230.07	94.94	149.99	63.96	81.35	25.04	112.04	59.88	63.36	26.00	392.05	370.12	151.73	69.09	33.13	5.80	129.66
NC2-7	114.51	258.29	73.88	205.15	259.17	117.92	199.09	94.05	100.97	32.33	96.65	35.64	41.57	481.96	331.75	511.21	197.28	57.42	34.23	21.59	110.09
NC2-8	120.09	335.63	79.57	203.40	236.77	60.32	157.46	116.95	78.46	23.70	115.19	48.40	60.50	11.73	64.43	69.10	159.06	52.38	35.73	10.05	62.05
NC2-9	149.15	303.89	133.95	232.23	194.64	98.08	116.95	76.15	165.37	22.42	77.91	43.42	53.35	514.36	682.11	763.11	117.87	54.71	35.13	27.11	154.00
NC2-10	105.95	236.36	103.09	211.39	211.98	61.74	150.04	102.16	103.04	16.66	119.22	31.45	60.78	760.14	442.27	480.09	153.64	46.30	33.24	13.54	0.00
NC2-11	78.39	172.87	62.38	193.95	201.55	75.53	136.84	105.28	78.72	19.95	100.57	51.51	87.24	15.65	200.96	225.83	136.32	49.10	33.69	12.94	155.46
NC2-12	115.82	318.75	83.16	186.32	236.29	61.05	152.68	98.56	94.90	19.57	78.41	36.61	58.63	603.87	446.16	459.17	152.75	7.79	34.17	13.81	110.16
NC2-13	102.96	252.78	79.16	181.05	169.82	64.79	100.83	76.28	56.48	27.24	73.72	62.75	43.74	154.44	586.33	712.32	100.40	143.43	33.51	23.44	122.63
NC2-14	98.09	267.15	68.88	224.64	250.78	95.69	143.69	102.16	115.76	22.91	69.54	43.43	48.08	0.00	717.25	808.04	143.68	44.72	34.71	19.33	130.51
NC2-15	82.43	216.61	67.46	109.61	156.25	56.24	100.40	47.89	136.13	14.11	40.47	33.02	16.57	17.14	359.19	644.54	100.52	7.70	0.00	6.84	133.83
NC2-16	90.43	275.56	70.81	175.31	242.66	62.16	155.44	125.80	72.26	29.91	88.53	47.71	58.29	569.09	469.40	500.63	151.35	29.89	33.21	10.84	125.27
NC2-17	134.78	291.47	90.61	178.45	214.82	62.90	121.46	86.61	70.63	25.67	82.34	50.09	57.96	15.72	612.78	831.50	124.86	7.01	34.11	13.05	100.05
NC2-18	112.70	266.03	83.38	128.18	198.87	53.97	145.91	87.70	69.43	26.53	114.06	37.15	64.67	369.83	323.83	389.50	144.67	7.49	33.93	9.12	54.59