

Supplementary Table 3. Nano LC-MS analysis to characterize the five protein bands identified by silver staining.

Band	Position on gel (kDa)	Accession	Description	MW (kDa)	Sequest-HT score	Coverage (%)	Function
1	140-180	A0A2A9IP86	Glutamate synthase large subunit OS=Lactococcus lactis OX=1358 GN=BW154_06430 PE=3 SV=1	164.3	174.44	32	Pro-tumoural features
2	140-180	N/A	N/A	N/A	N/A	N/A	N/A
3	100-140	A0A2A9IKZ9	Valine--tRNA ligase OS=Lactococcus lactis OX=1358 GN=valS PE=3 SV=1	101	347.59	60	Loading valine onto its specific tRNA
		A0A2A9IP05	Endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis OX=1358 GN=BW154_05500 PE=4 SV=1	102.3	317.81	56	Processing of free oligosaccharides in the cytosol
		A0A0V8DM88	Isoleucine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=ileS PE=3 SV=1	106.5	288.78	48	Catalysing the attachment of isoleucine to tRNA (Ile)
		A0A0V8CY66	Valine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=valS PE=3 SV=1	100.5	284.84	52	Loading valine onto its specific tRNA
		A0A2N5WA15	Cytosolic endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis subsp. lactis OX=1360 GN=CYU10_002498 PE=4 SV=1	102.4	278.21	54	Processing of free oligosaccharides in the cytosol
		A0A0V8BFY1	Uncharacterized protein OS=Lactococcus lactis subsp. lactis OX=1360 GN=LKF24_2507 PE=4 SV=1	102.4	251.49	47	N/A

		A0A0V8DGH2	DNA-directed RNA polymerase subunit beta OS=Lactococcus lactis subsp. lactis OX=1360 GN=rpoB PE=3 SV=1	133.1	223.53	45	Polymerisation of ribonucleotides into complementary DNA
		A0A2A9IMI1	DNA-directed RNA polymerase subunit beta' OS=Lactococcus lactis OX=1358 GN=rpoC PE=3 SV=1	134.7	219.77	44	Polymerisation of ribonucleotides into complementary DNA
		D2BLI1	Isoleucine--tRNA ligase OS=Lactococcus lactis subsp. lactis (strain KF147) OX=684738 GN=ileS PE=3 SV=1	106.7	218.42	36	Catalysing the attachment of isoleucine to tRNA (Ile)
		A0A2A9INL0	Alpha-mannosidase OS=Lactococcus lactis OX=1358 GN=BW154_05470 PE=3 SV=1	102.6	182.86	38	Alpha-mannosidase reduces high-mannose N-glycans, malignant progression markers in early-stage CRC
		D2BKE9	Alpha-mannosidase OS=Lactococcus lactis subsp. lactis (strain KF147) OX=684738 GN=ypdB PE=3 SV=1	102.1	167.28	36	Alpha-mannosidase reduces high-mannose N-glycans, malignant progression markers in early-stage CRC
		A0A2A9IR05	Pyruvate carboxylase OS=Lactococcus lactis OX=1358 GN=BW154_09950 PE=4 SV=1	126.5	143.83	35	Catalysing the HCO ₃ ⁻ and MgATP-dependent carboxylation of pyruvate to form oxaloacetate
4	100-140	A0A2A9IKZ9	Valine--tRNA ligase OS=Lactococcus lactis OX=1358 GN=valS PE=3 SV=1	101	490.21	67	Loading valine onto its specific tRNA
		A0A0V8CY66	Valine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=valS PE=3 SV=1	100.5	425.48	59	Loading valine onto its specific tRNA
		A0A2A9IMI1	DNA-directed RNA polymerase subunit beta' OS=Lactococcus lactis OX=1358 GN=rpoC PE=3 SV=1	134.7	333.97	57	Polymerisation of ribonucleotides into complementary DNA

		A0A0V8DGH2	DNA-directed RNA polymerase subunit beta OS=Lactococcus lactis subsp. lactis OX=1360 GN=rpoB PE=3 SV=1	133.1	274.3	55	Polymerisation of ribonucleotides into complementary DNA
		A0A7L9L7K3	Discoidin domain-containing protein OS=Lactococcus lactis OX=1358 GN=HZ322_06980 PE=4 SV=1	102.4	239.12	51	Blood coagulation factor
		A0A2A9IP05	Endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis OX=1358 GN=BW154_05500 PE=4 SV=1	102.3	234.55	52	Processing of free oligosaccharides in the cytosol
		A0A2N5WA15	Cytosolic endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis subsp. lactis OX=1360 GN=CYU10_002498 PE=4 SV=1	102.4	216.68	49	Processing of free oligosaccharides in the cytosol
		A0A0V8DM88	Isoleucine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=ileS PE=3 SV=1	106.5	216.63	46	Catalysing the attachment of isoleucine to tRNA (Ile)
5	100-140	A0A2A9IMI1	DNA-directed RNA polymerase subunit beta' OS=Lactococcus lactis OX=1358 GN=rpoC PE=3 SV=1	134.7	260.25	51	Polymerisation of ribonucleotides into complementary DNA
		A0A2A9IKZ9	Valine--tRNA ligase OS=Lactococcus lactis OX=1358 GN=valS PE=3 SV=1	101	240.33	48	Loading valine onto its specific tRNA
		A0A0V8DGH2	DNA-directed RNA polymerase subunit beta OS=Lactococcus lactis subsp. lactis OX=1360 GN=rpoB PE=3 SV=1	133.1	201.54	43	Polymerisation of ribonucleotides into complementary DNA

A0A0V8CY66	Valine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=valS PE=3 SV=1	100.5	195.46	42	Loading valine onto its specific tRNA
A0A2A9IP05	Endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis OX=1358 GN=BW154_05500 PE=4 SV=1	102.3	135.45	37	Processing of free oligosaccharides in the cytosol
A0A0V8DM88	Isoleucine--tRNA ligase OS=Lactococcus lactis subsp. lactis OX=1360 GN=ileS PE=3 SV=1	106.5	129.92	36	Catalysing the attachment of isoleucine to tRNA (Ile)
A0A2N5WA15	Cytosolic endo-beta-N-acetylglucosaminidase OS=Lactococcus lactis subsp. lactis OX=1360 GN=CYU10_002498 PE=4 SV=1	102.4	119.31	35	Processing of free oligosaccharides in the cytosol

MW, molecular weight.