

# Eliminating a global regulator of carbon catabolite repression enhances the conversion of aromatic lignin monomers to muconate in *Pseudomonas putida* KT2440

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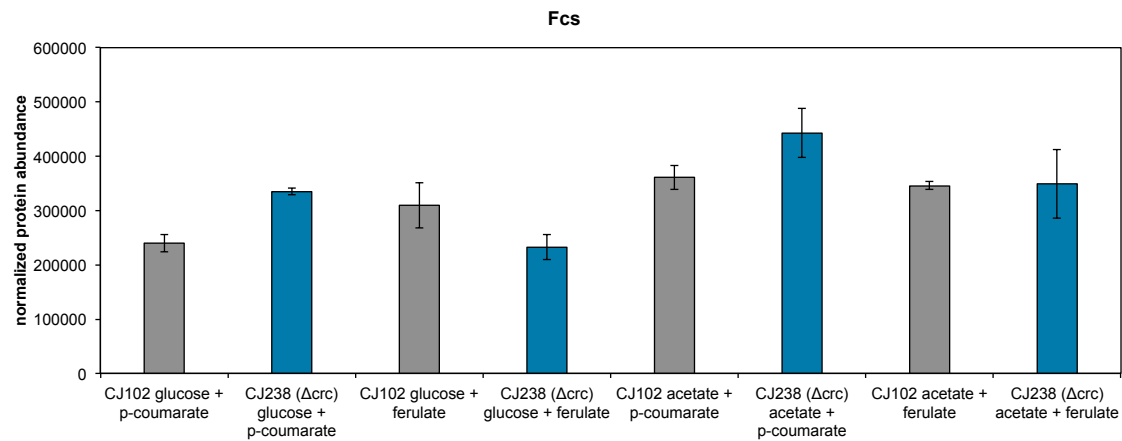
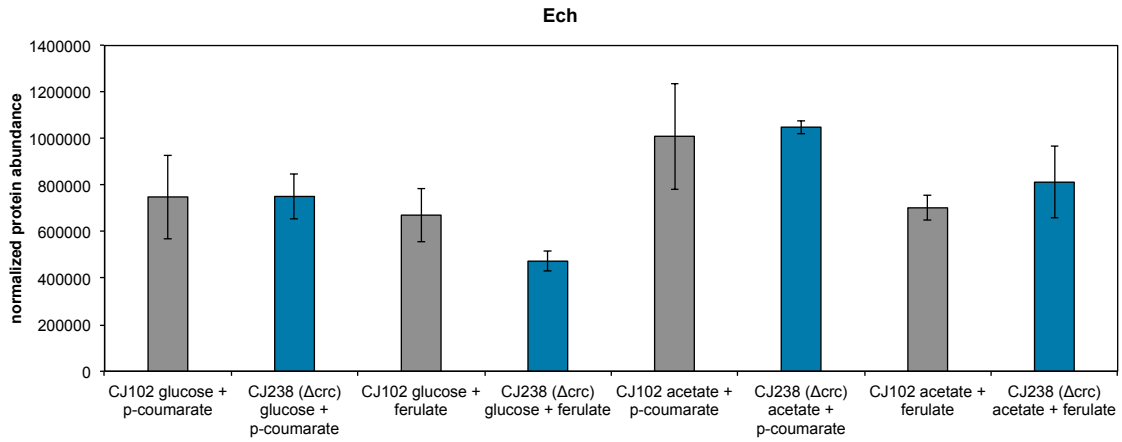
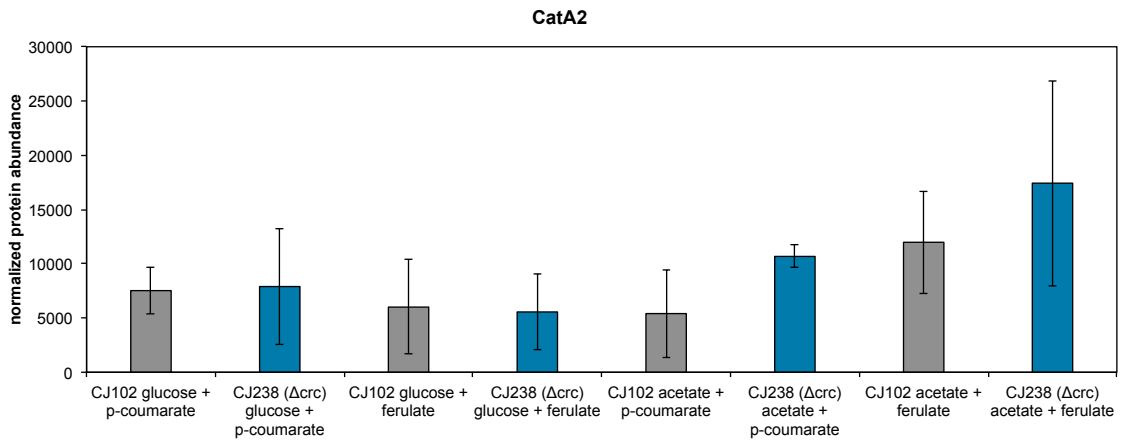
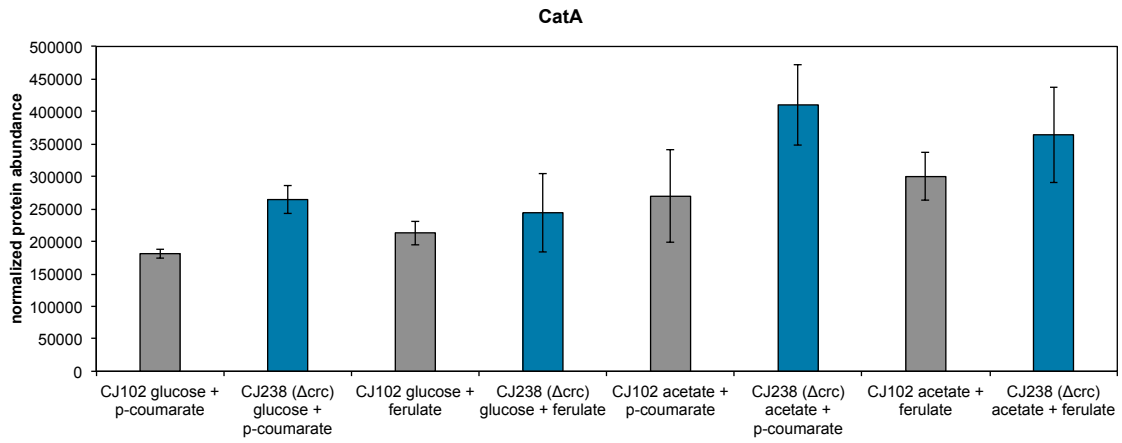
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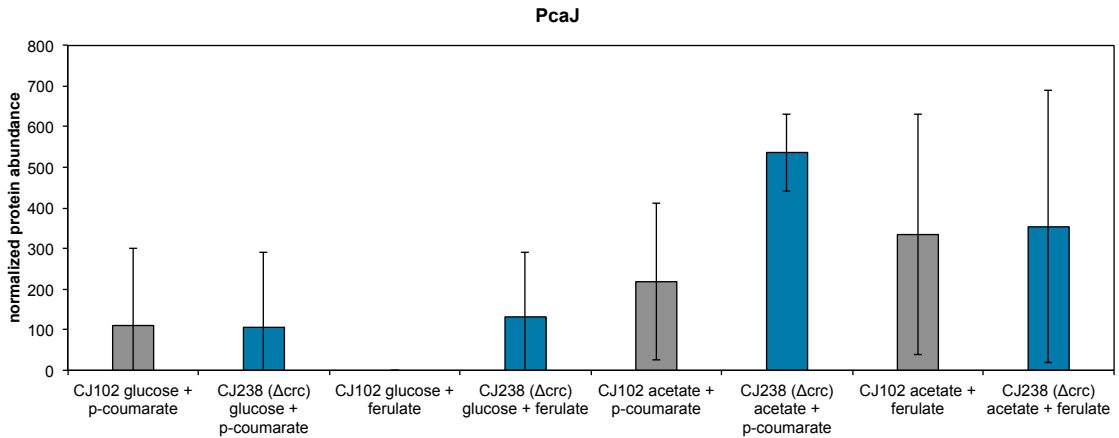
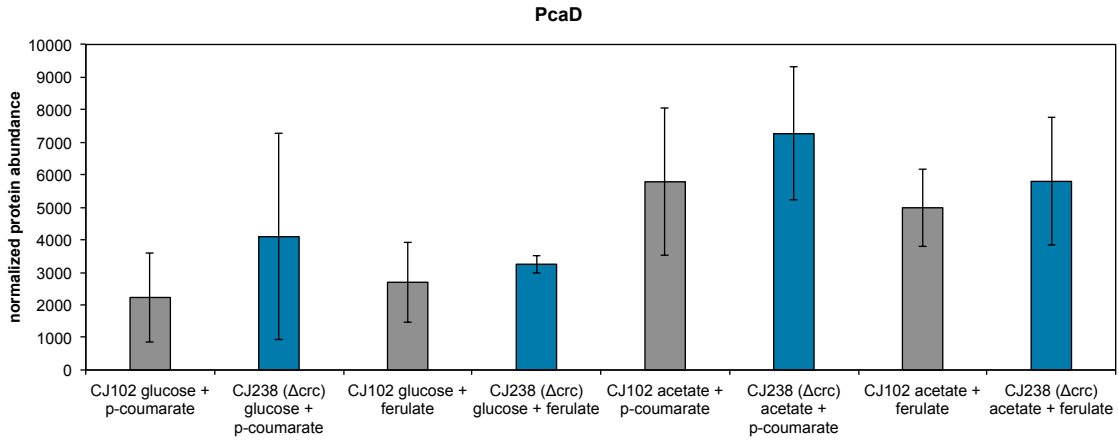
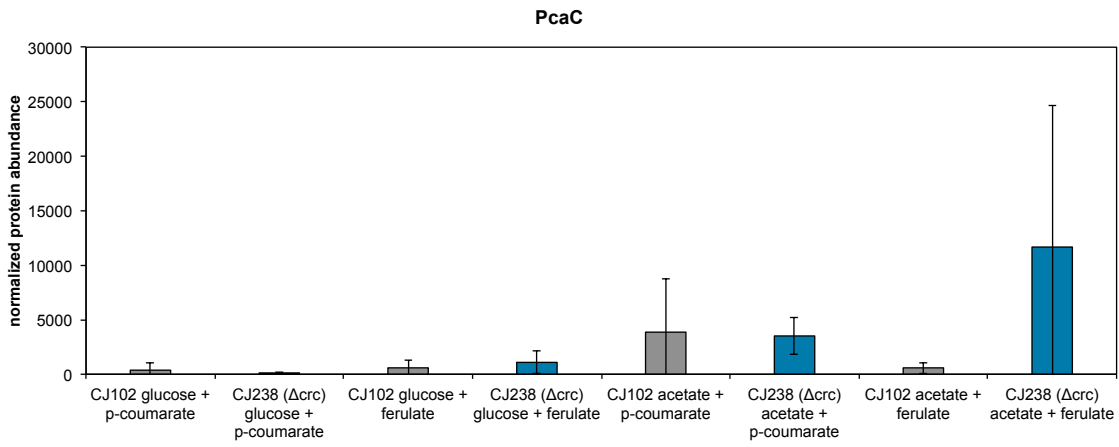
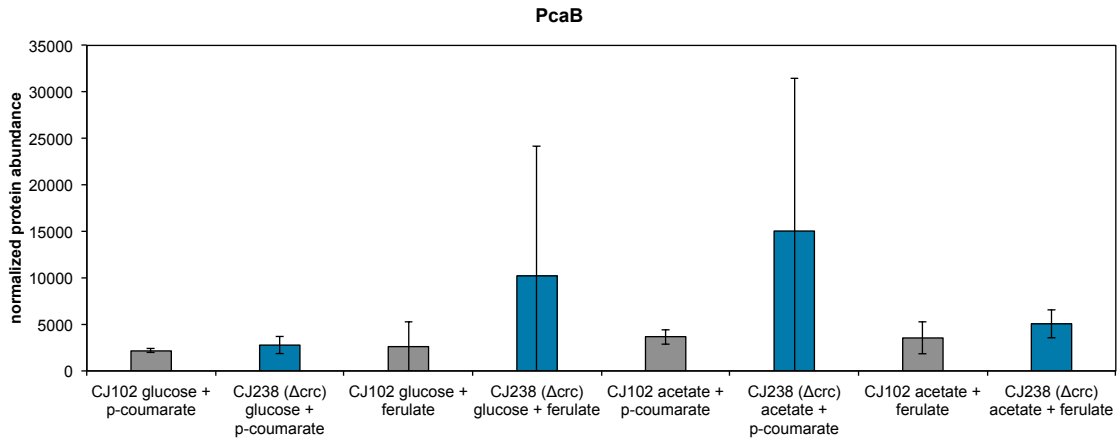
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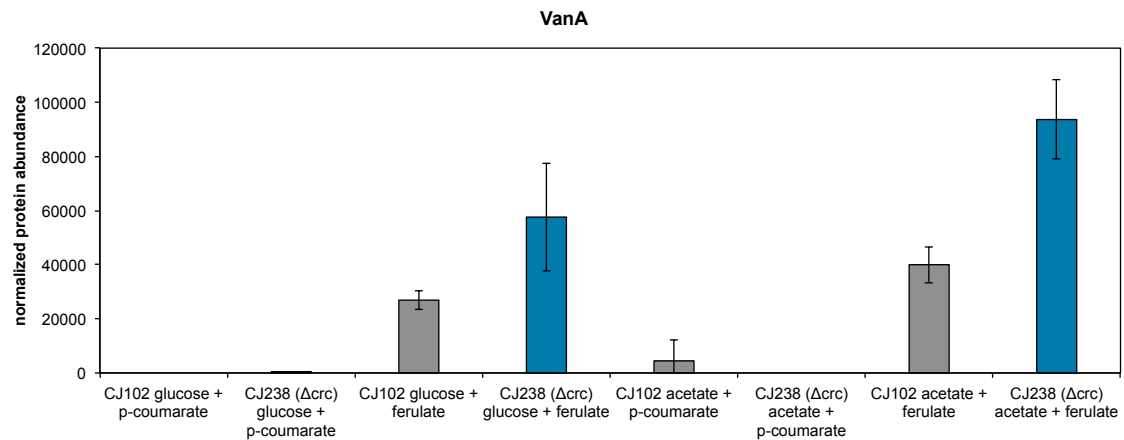
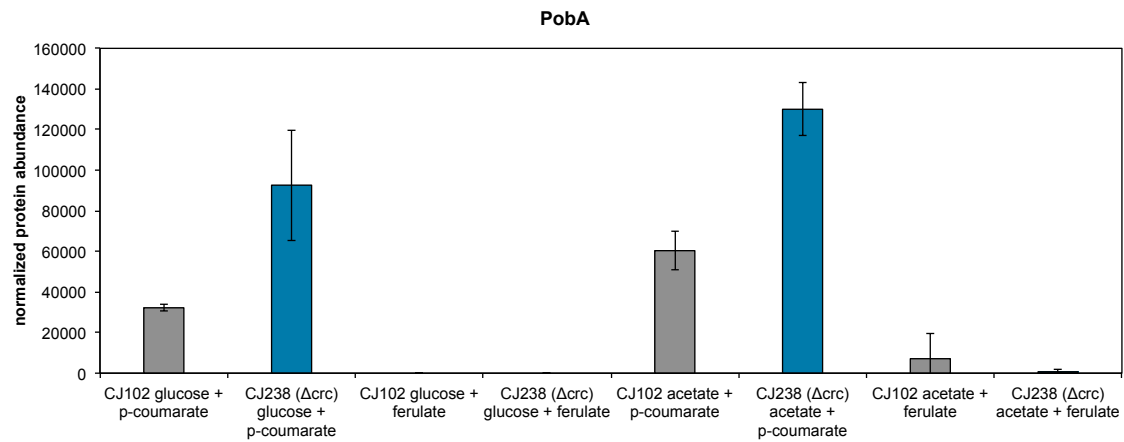
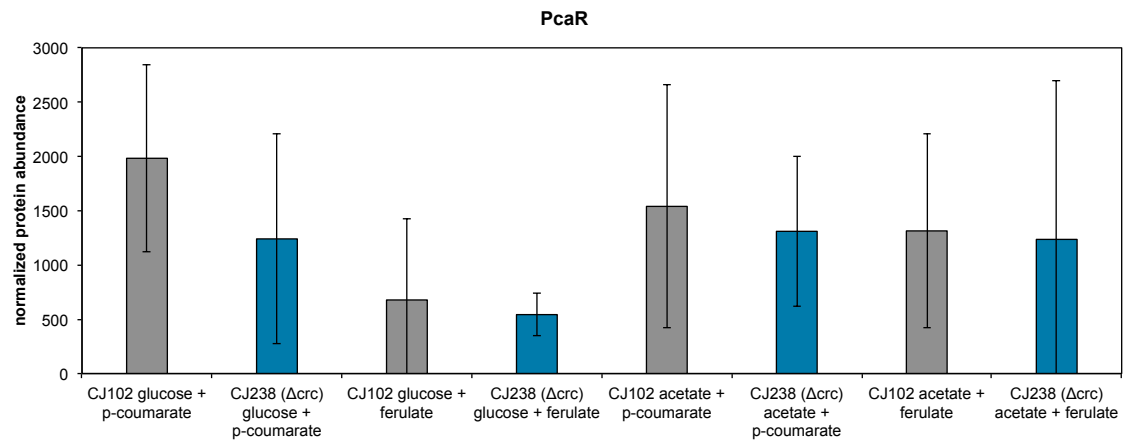
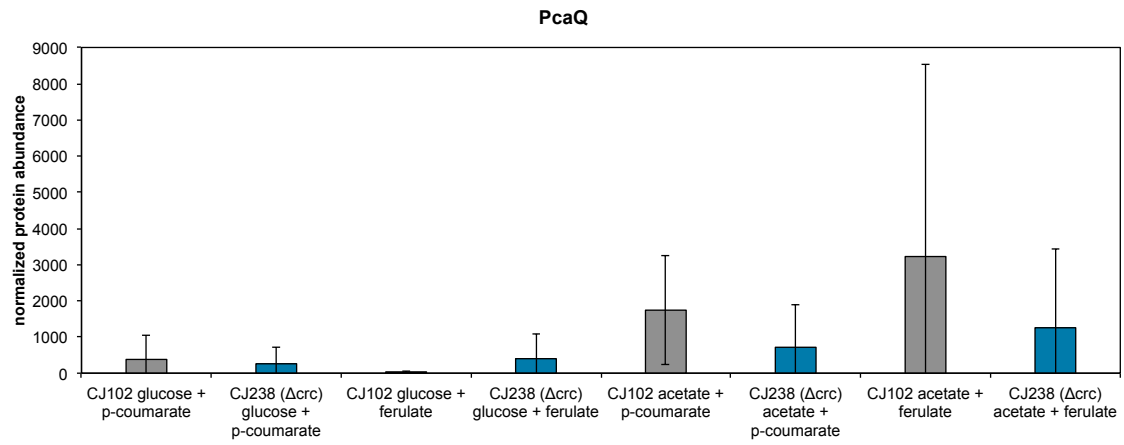
## SUPPLEMENTAL INFORMATION

Table S1. Normalized protein abundances for proteins involved in the metabolism of *p*-coumarate, ferulate, and benzoate identified by mass spectrometry-based proteomics. Null values are represented as zeros. The following proteins were not identified: CatB (Q88GK6), CatC (Q88GK7), CatR (Q88GK5), PcaF (Q88N39), PcaG (Q88E13), PcaH (Q88E12), PcaI (Q88FX5), PcaK (Q88N40), PcaP (Q88N34), PcaT (Q88N38), PobR (Q88H27), VanK (Q88GI3), and VanP (A0A140FWI0). Each abundance represents the average of measurements from biological triplicates.

Protein name	CatA	CatA2	Ech	Fcs	PcaB	PcaC	PcaD	PcaJ	PcaQ	PcaR	PobA	VanA	VanB	VanR	Vdh	
UniProt Accession	Q88GK6	Q88I35	Q88HJ8	Q88HK0	Q88N37	Q88N35	Q88N36	POA101	Q88M61	Q88N41	Q88H28	Q88GI6	Q88GI5	Q88GI4	Q88HJ9	
Glucose + <i>p</i> -coumarate	KT244-CJ102 Normalized protein abundance	181101	7524.51	749272	239939	2150.6	373.756	2228.19	110.403	380.396	1982.77	32198.9	0	0	2553.09	695226
	KT244-CJ102 Standard deviation	6881.02217	2179.8379	179977.399	15955.1497	218.24533	647.364382	1369.07704	191.223605	658.865	860.829	1608.4	0	0	2891.07	35601.3
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Normalized protein abundance	264347	7899.63	751398	334719	2774.77	62.5761	4095.55	105.907	259.855	1240.31	92618.8	58.9326	530.261	4078.13	666106
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Standard deviation	21997.3917	5354.4099	96375.1174	6650.79797	908.942159	108.384985	3160.81952	183.436305	450.082	967.291	27260.4	102.074	623.1	1863.63	83040.2
	Student's T-test p-value	0.0019	0.7683	0.9231	0.0011	0.3045	0.8466	0.7170	0.9961	0.9702	0.3033	0.0034	0.3739	0.0012	0.3151	0.5779
	Fold change	1.4571	1.2124	1.0157	1.3969	1.2513	1.8144	1.4384	1.0140	1.1355	1.8896	2.8012	5.4843	301.8903	2.2513	1.0482
Glucose + ferulate	KT244-CJ102 Normalized protein abundance	213162	6005.62	671040	309677	2612.12	587.698	2694.92	0	14.8342	677.858	0	26909.4	31986.6	8550.03	742732
	KT244-CJ102 Standard deviation	18462.9688	4349.69919	116930.75	41846.6939	2647.28377	749.517274	1239.6686	0	25.6936	744.034	0	3569.27	6455.09	7922	128567
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Normalized protein abundance	244111	5558.19	473205	232349	10218.7	1088.58	3249.42	131.709	400.785	542.94	0	57584.5	41682.9	5320.02	478433
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Standard deviation	60375.6538	3472.65795	43757.146	22625.2601	13974.134	1006.27129	275.543303	160.507589	694.18	198.713	0	19977.1	10995.3	5313.55	93111.6
	Student's T-test p-value	0.4925	0.9680	0.0454	0.0416	0.3900	0.8729	0.4111	0.1227	0.6997	0.7546	0.0000	0.0421	0.2833	0.6207	0.0476
	Fold change	1.1240	1.0323	1.4065	1.3289	2.6336	1.7500	1.2971	28.3879	3.0007	1.3346	0	2.0497	1.2895	2.0333	1.5571
Acetate + <i>p</i> -coumarate	KT244-CJ102 Normalized protein abundance	269409	5408.03	1010000	361233	3683.66	3861.73	5780.59	218.284	1741.74	1539.72	60345.1	4455.83	3905.39	4597.54	1042020
	KT244-CJ102 Standard deviation	70715.4776	4049.41354	228085.111	22465.3918	808.005166	4869.01999	2254.61054	193.090756	1511.76	1122.9	9594.73	7717.72	6764.33	3251.15	151795
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Normalized protein abundance	410079	10676.6	1049220	442543	15041.8	3513.55	7259.65	536.554	716.036	1309.95	129994	0	16.6634	8940.97	1022280
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Standard deviation	61848.9363	1042.68766	28212.5096	44662.8353	16384.9408	1683.084	2038.7104	95.2233037	1162.11	689.884	12896.7	0	28.8619	1702.04	106729
	Student's T-test p-value	0.0784	0.1032	0.7074	0.0427	0.1722	0.4424	0.4321	0.2780	0.7425	0.8955	0.0021	0.3739	0.6164	0.1866	0.8912
	Fold change	1.5494	2.3348	1.0580	1.2224	2.8032	11.2155	1.2789	10.9655	3.3118	1.1108	2.1656	23.1908	6.1655	2.4710	1.0157
Acetate + ferulate	KT244-CJ102 Normalized protein abundance	299716	11980.2	702421	345183	3543.66	587.231	4983.02	334.419	3223.47	1313.93	7127.46	40000.2	22532.1	4800.81	840751
	KT244-CJ102 Standard deviation	364096	17428	812696	349222	5063.91	11668.3	5794.48	353.494	1255.41	1235.75	694.438	93628.8	52254.2	2965.78	923119
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Normalized protein abundance	36724.8465	4720.15022	52479.2342	7420.00174	1762.84667	518.272903	1187.80444	295.643752	5327.11	893.447	12345.1	6691.74	8222.18	2917.43	86606.7
	KT2440-CJ238 ( <i>Δ</i> <i>cr</i> ) Standard deviation	73463.0297	9475.01074	154210.546	63193.1809	1541.86816	12977.0096	1952.97389	334.999411	2174.43	1467.42	915.361	14550.3	10847.7	3179.59	126679
	Student's T-test p-value	0.2403	0.4154	0.3299	0.9921	0.3356	0.0371	0.6311	0.9951	0.5965	0.7297	0.7977	0.0030	0.0190	0.4445	0.4198
	Fold change	1.2048	1.4096	1.1445	1.0011	1.5205	15.4467	1.1361	1.0192	8.8461	1.4001	2.9839	2.3453	2.3835	1.9993	1.0946







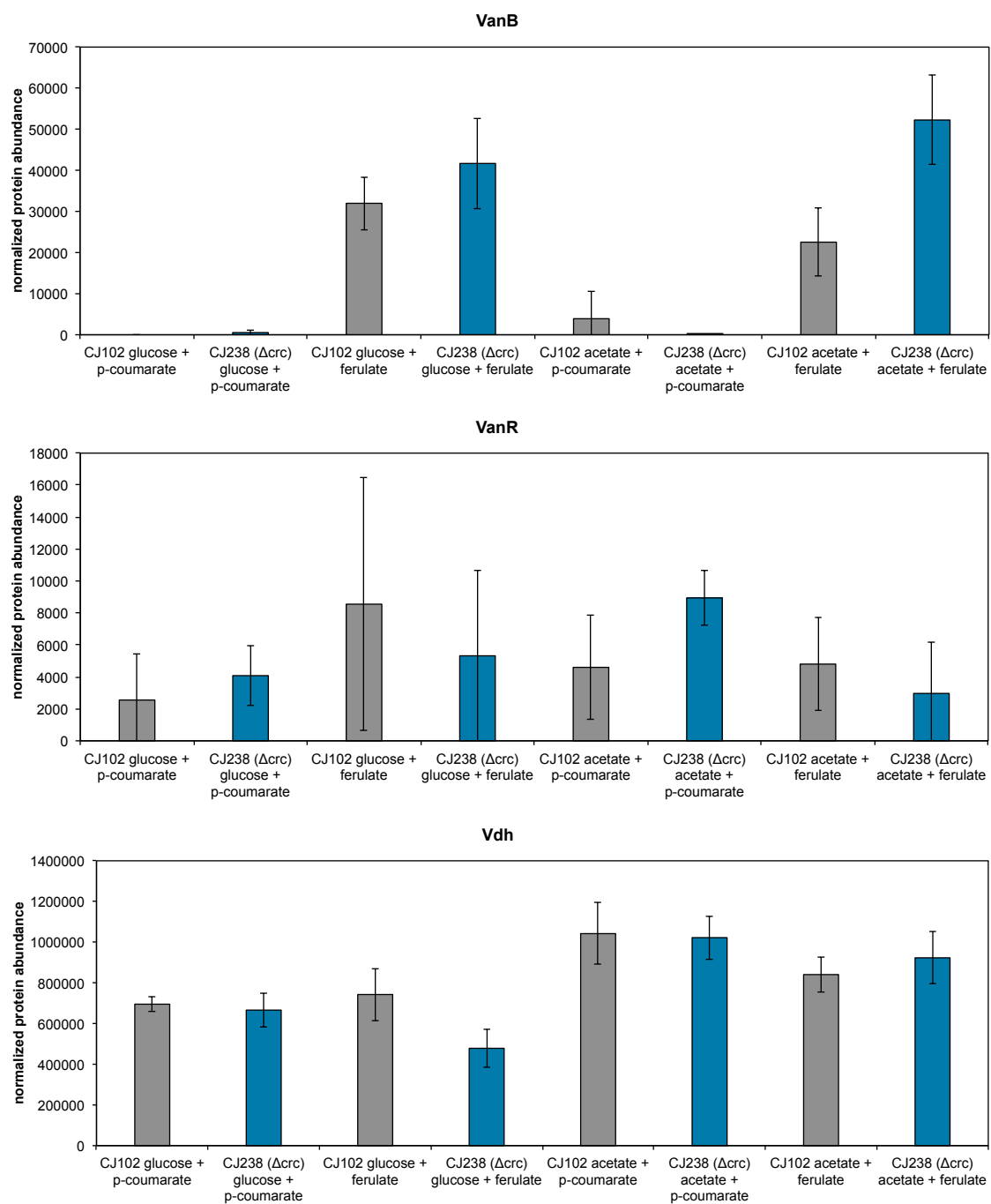


Fig. S1. Graphs of normalized protein abundances in Table S1. Error bars represent the standard deviation of measurements from biological triplicates.