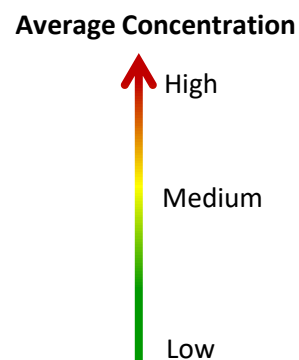


Supplementary Data 1. Average Metabolite Concentration of Un-irradiated (0 kGy Control), Freshly Irradiated (EB 0 h), 24 Hour Post-Irradiation (EB 24 h) *E. coli* O26:H11

Metabolite	Average Metabolite Concentration		
	0 kGy Control	EB 0 h	EB 24 h
L-Threo-2-pentulose	1087	993	1803
D-Xylose	2685	13713	14167
D-Xylono-1,5-lactone	2628	1393	1797
Xanthosine	336	522	4242
Xanthine	2788	5518	7355
L-Valine	154300	84687	304568
Urocanic acid	116	155	166
Uridine 5'-monophosphate	2133	1123	760
Uridine	7694	9319	5190
Uracil	98576	116852	267797
Tyrosol	61	50	68
L-Tyrosine	57352	28617	32979
L-Tryptophan	8473	5856	10038
Trehalose	2775	2022	1400
Thymine	2444	9553	30700
5-Thymidylic acid	317	2121	1687
Threonine	7045	5482	7418
Lignocerane	1549	3766	1215
2,3-Dihydroxybutanedioic acid	49	736	844
Sucrose	646	1992	15547
Succinic acid	6840	9989	43369
Stearic acid	1176491	1386187	1178966
Spermidine	376239	195561	325089
Serine	9841	9203	8017
2-Hydroxybenzaldehyde	429	426	1172
D-Ribulose 5-phosphate	822	924	576
Ribose-5-phosphate	1184	1107	1196
Ribose	41206	38062	51555
Ribonic acid	276	341	418
Raffinose	77	52	46
Pyrophosphate	130598	80031	64453
Putrescine	851406	552839	644559
Pseudouridine	1228	1112	4526
Proline	24197	13850	6921
Pipicolinic acid	904	385	811
Pinitol	27479	6064	7382
Hydroxyphenyllactic acid	514	711	4308
Phthalic acid	1995	4075	4915
Phosphoethanolamine	11420	14843	16456
Phosphoenolpyruvate	3153	3371	1837
Phosphate	298265	276712	272488



Phenylpyruvate	2616	5044	10505
Phenylethylamine	11317	8696	8580
Phenylalanine	28256	13950	22880
Pentadecanoic acid	6339	18118	29679
Pelargonic acid	3006	8073	2897
Oxalureate	638	12650	18916
Pantothenic acid	1987	1177	2297
Palmitic acid	149712	246634	149418
Pyroglutamic acid	143503	139006	60362
Oxalic acid	212	2995	2686
Orotic acid	6573	180	159
Ornithine	26362	9495	12031
Oleic acid	295	481	268
Octadecanol	343	576	273
Noradrenaline	188	1635	807
Nonadecanoic acid	1311	1898	1214
Nicotinic acid	2353	2020	18772
Nicotinamide	16327	15380	7387
N-Acetylputrescine	802201	1877	370540
N-Acetylornithine	1309	15302	18985
Acetylglycine	330	913	672
N-Acetyl-D-galactosamine	172	780	626
N-Acetylaspartic acid	328	628	708
Myristic acid	2698	4310	3307
Myo-Inositol	361	544	356
Methionine sulfoxide	24615	7937	15335
Methionine	4738	2055	3440
Maltotriose	1157	919	246
Maltose	13339	10670	3973
Malonic acid	95	1986	2407
Malic acid	2379	3735	7444
Lyxose	1973	929	1472
Lysine	137263	88028	78755
Leucine	51406	20819	49772
Lauric acid	4806	9350	6463
Lactulose	552	723	700
Lactic acid	2086	7256	3480
Prostaglandin F2a	2585	968	917
D-Threitol	42	77	643
Isoribose	281	175	1663
Isoleucine	92727	47881	99635
Inosine	243	201	5021
Indole-3-lactate	145	286	1478
indole-3-acetate	1395	897	6069
Hypoxanthine	1803	3666	191369
Hydroxylamine	30193	28787	31749
Homoserine	2591	1971	3762

Histidine	17280	6607	13536
Glucose 6-phosphate	941	353	81
Heptadecanoic acid	7142	12693	8095
Guanosine	7295	5974	7594
Guanine	11705	5544	8924
Glycolic acid	1593	6157	14806
Glycine	14056	7501	9737
DL-Glycerol 1-phosphate	8867	9794	10808
Galactosylglycerol	2870	1116	1765
Glyceric acid	3919	7089	20577
Glutathione	2017	1455	282
Glutaric acid	670	428	4034
Glutamine	1327	479	1553
Glutamic acid	82467	39991	22770
Glucose-6-phosphate	1471	984	42
Glucose-1-phosphate	1858	1750	2464
Glucose	1377	1882	1265
Galactonic acid	477	346	533
Galactinol	174	123	156
Fumaric acid	5180	6398	16501
Fucose	8722	7748	11768
Fructose-6-phosphate	759	356	126
Fructose	293	2141	1411
Ethanolamine	48490	33181	288279
Dodecanol	434	989	448
Dehydroascorbic acid	276	4235	4294
Dehydroabietate	3634	2680	2651
Cytosine	864	1137	1455
Cytidine monophosphate	1934	3226	1741
Cysteinylglycine	6270	1875	2390
Cysteine	8087	570	1701
Conduritol-beta-epoxide	11462	1818	1606
Citrulline	4827	2522	2416
Citric acid	12168	26915	18047
Citramalic acid	225	877	760
Citraconic acid	4621	10041	20075
Cholesterol	343	734	1067
Cellobiose	2442	1966	797
Capric acid	233	878	348
2-Pyrrolidinone	1620	1644	1349
Beta-Hydroxymyristic acid	156	120	223
Beta-Glycerophosphoric acid	344	330	367
Gentiobiose	335	73	39
Beta-Alanine	323	4399	6258
Benzoic acid	1020	1534	976
Behenic acid	3636	4930	5074
Aspartic acid	34013	23804	11667

Arachidic acid	13176	21259	13067
Aminomalonate	414	173	324
Alpha-Ketoglutarate	458	994	293
Alpha-Aminoadipic acid	120	183	605
Alanine-?-Alanine	91995	31179	23405
D-Alanyl-D-alanine	2577	9888	701
Alanine	60446	41338	75911
Adipic acid	1432	2517	1176
Adenosine monophosphate	22851	15192	23656
Adenosine	28222	28424	30923
Adenine	95959	81243	142314
Acetophenone	2858	3899	2671
7-Methylguanine	111	110	652
Quinovose	1564	31547	45045
Glucitol, 6-deoxy-	2029	1218	1406
5-Methoxytryptamine	8531	8416	7454
5'-Methylthioadenosine	2838	4018	2845
5-Aminovaleric acid	3476	1457	9884
4-Hydroxyphenylacetic acid	5781	2979	21905
4-Hydroxybutyric acid	677	99	804
4-Hydroxybenzoate	748	469	2137
4-Aminobutanoate	25328	6966	2145
3-Phosphoglycerate	17465	15615	6098
3-Phenyllactic acid	3012	2838	24507
3-Hydroxybutyric acid	1065	3476	2746
3'-Adenylic acid	7167	3851	3715
Propanoic acid	503	282	888
2-Ketoisocaproic acid	7210	22715	54290
2-Ketoadipic acid	2295	3289	3435
2-Hydroxyvaleric acid	1759	3888	4042
2-Hydroxyhexanoic acid	3393	1171	12003
D-2-Hydroxyglutaric acid	1319	723	2957
2,4-Dihydroxybutanoic acid	3181	3581	4109
2,5-Dihydropyrazine	12955	4542	3890
2,4-Diaminobutyric acid	104	3146	2351
4-Deoxyerythronic acid	47	454	805
1-Monostearin	357	442	400
1-Monopalmitin	1836	1043	1253
1-Deoxyerythritol	109358	35432	5858
1,3-Diaminopropane	1922	1793	2104
704730	710	292	983
160962	2863	5308	2475
160842	5533	2619	7133
159824	2389	2760	1788
146957	3337	2972	3097
146262	278	316	913
146042	55724	9494	10451

145865	508	794	4611
134760	1388	32354	45153
134752	48	260	349
134122	272	395	587
133242	2118	4134	3164
132976	2205	1366	513
131620	78259	73198	71453
130797	1432	4397	4123
130396	805	761	630
129313	94	52	73
127277	3307	3361	4913
125786	256	2153	834
124903	8466	14662	8380
124568	4782	885	1252
123989	83	534	592
121002	1404	1736	1540
120789	1292	1371	1347
119066	1080	1996	1208
113700	2529	907	4253
112264	26992	26606	32162
111826	3540	6703	3115
111057	694	480	356
110359	511	679	1351
110346	382	1011	1071
110265	205	1104	1989
110131	1556	769	1421
108309	479	341	1622
106742	180167	266625	220710
104906	3677	5502	4408
104022	5706	2213	2602
103857	69	495	265
103138	5819	4218	6381
103102	25569	25581	22518
102232	3388	1569	1779
100723	6074	361	4965
88786	4479	1749	1144
88502	3156	4956	3709
88046	4439	2311	1754
87947	78	60	66
87312	1075	3813	691
87282	3434	2724	12689
84565	1630	1849	622
84209	8347	8782	7402
66261	74	2104	1147
48608	68	1444	1401
47420	4657	2933	6953
47170	841	1349	594

46357	2660	10006	13162
46128	694	1077	624
41989	76	661	674
41811	851	1016	797
41808	838	1217	1187
33999	69	297	379
32148	529	729	3235
31460	1147	2014	1031
31408	1287	1986	1361
31362	4132	8221	3384
31359	1406	2801	1768
31285	3579	4742	10527
26062	155	333	149
21885	1176	2227	1128
21683	2697	2760	3462
21666	3746	3591	1662
21665	1737	4265	2027
21664	5167	4981	3338
21511	862	1210	2118
20903	6504	3321	5572
20330	2590	5499	2008
20282	2898	980	2475
18588	1129	916	1152
18485	3670	5090	2447
18266	915	394	357
18248	290	87	707
18225	864	856	923
18177	2879	977	2252
17962	3472	6650	2988
17830	1116	479	572
17775	42	684	567
17651	440	833	380
17463	146	140	114
17437	2248	1076	1681
17245	1195	1584	1272
17068	667	593	731
17002	1162	740	1212
14703	1414	2393	3876
14697	1821	635	424
10176	122	170	472
9320	7218	9237	4324
7408	877	2990	2576
7403	112	4367	4127
5691	1709	2761	12472
5523	2450	4726	2016
5346	4978	8195	4846
4945	757	850	832

4937	970	1633	971
4850	28	912	1159
4712	809	1702	1735
4550	964	1138	746
4265	3174	6405	2860
4264	3794	8133	2718
4263	4529	8899	4139
3188	1620	3653	3509
3122	18608	11849	9076
2847	347	838	316
2706	1184	2803	1650
2543	1596	546	921
2503	2354	1147	589
2438	11932	6058	11144
2262	4969	7696	7518
2242	10151	7390	9490
2233	3224	2367	1786
2042	2540	3648	8875
2039	1868	2366	3258
2031	20382	7438	8944
2030	1353	1624	1530
2028	685	378	470
2017	640	453	1899
2001	2397	685	269
1996	332	3450	3333
1981	1637	1458	2141
1970	2377	860	768
1969	383	437	472
1941	743	572	764
1912	1393	2599	1359
1878	3584	6819	4550
1875	4244	6518	4605
1872	5281	7023	5483
1852	418	341	1216
1826	1044	313	1182
1815	1591	5839	2732
1812	1339	838	650
1809	1876	1510	1554
1806	5359	985	2196
1805	2648	3101	1095
1803	351	635	714
1799	8939	72153	85972
1760	2449	837	500
1753	4114	5572	6515
1751	6227	8761	6493
1746	893	463	452
1744	724	1027	684

1737	3615	802	1381
1735	1959	666	965
1725	3132	4501	2837
1721	1789	1053	1169
1719	162	84	1036
1717	20237	15429	13994
1713	2566	782	718
1708	3167	1212	1236
1702	6650	1260	1859
1701	879	172	610
1696	344	267	346
1675	7346	551	236
1673	1991	929	1508
1666	1242	1368	2382
1661	2712517	1715809	2601839
1064	2109	4126	2276
816	5414	4083	7335
453	27407	21061	28284
443	10205	10148	8663
307	9950	28000	16211
257	1579	2363	1332
168	1395	1078	1258
137	2714	8944	4683
134	14416	9573	7818
110	2124	2837	4747
47	7671	13929	8800