

Table 1. 19 common differential metabolites in 10 Gy Vs 0 Gy group and 20 Gy Vs 0 Gy group.

NO.	Metabolites	10 Gy Vs 0 Gy			20 Gy Vs 0 Gy			Regulation
		VIP	<i>P</i> -value	Fold-Change	VIP	<i>P</i> -value	Fold-Change	
1	Benzyl thiocyanate	1.77	6.07E-03	0.38	2.92	6.00E-10	Undetectable in 20 Gy group	Down-regulation
2	Carbazole	2.06	1.43E-02	0.42	2.82	2.19E-10	Undetectable in 20 Gy group	Down-regulation
3	N-formyl-L-methionine	1.93	2.20E-02	0.45	2.65	1.63E-10	Undetectable in 20 Gy group	Down-regulation
4	hydrocinnamic acid	1.18	2.94E-02	3.64	1.55	3.33E-02	3.28	Up-regulation
5	taurine	1.94	2.84E-04	8.19	2.50	9.83E-04	5.82	Up-regulation
6	Cumic Acid	1.16	1.90E-05	9.83	1.38	4.51E-03	6.77	Up-regulation

7	oxalic acid	2.34	5.01E-06	15.79	3.12	6.94E-06	15.05	Up-regulation
8	3-Methylamino-1,2-propanediol	1.37	2.76E-07	33.33	1.56	7.91E-03	21.90	Up-regulation
9	isocitric acid	1.52	4.97E-07	69.08	1.72	1.18E-02	44.99	Up-regulation
10	2-aminoethanethiol	1.92	2.57E-08	73.07	2.41	9.45E-03	46.30	Up-regulation
11	norvaline	2.34	2.01E-07	76.66	3.01	9.84E-03	48.58	Up-regulation
12	Maleamate	2.41	5.74E-07	125.60	3.11	3.08E-03	74.34	Up-regulation
13	N-Ethylglycine	2.54	8.43E-07	146.58	3.28	8.57E-03	94.36	Up-regulation
14	dibenzofuran	2.54	9.75E-08	158.66	3.28	1.07E-02	101.39	Up-regulation
15	5,6-Dimethylbenzimidazole	1.82	5.67E-03	448.45	2.41	3.49E-03	370.81	Up-regulation
16	S-carboxymethylcysteine	2.63	1.41E-07	392206.56	2.88	1.66E-02	230799.48	Up-regulation

17	Methylmalonic acid	2.75	2.77E-05	1500951.75	2.37	4.97E-02	556526.10	Up-regulation
18	methyl heptadecanoate	2.42	6.55E-04	5073179.44	2.09	4.97E-02	3247908.58	Up-regulation
19	p-benzoquinone	3.10	1.22E-07	61267426.00	3.43	1.20E-02	37867863.12	Up-regulation

Table 2. KEGG pathways of dysregulated metabolites.

Group	Pathway	P-value	Metabolites
10 Gy Vs 0 Gy	Taurine and hypotaurine metabolism	3.02E-03	5,6-Dimethylbenzimidazole, 2-Aminoethanethiol
	Riboflavin metabolism	3.32E-03	Benzyl thiocyanate, P-benzoquinone
	Glyoxylate and dicarboxylate metabolism	1.42E-02	Oxalic acid, Dibenzofuran
20 Gy Vs 0 Gy	Taurine and hypotaurine metabolism	4.58E-03	pyrogallol, methyl heptadecanoate
	Riboflavin metabolism	5.05E-03	Norvaline, 5,6-Dimethylbenzimidazole
	ABC transporters	1.04E-02	Oxalic acid, Methyl heptadecanoate, 3-Hydroxynorvaline
	beta-Alanine metabolism	1.09E-02	Malonic acid, 3-Hydroxynorvaline
	Glyoxylate and dicarboxylate metabolism	2.12E-02	3-Methylamino-1,2-propanediol, Cumic Acid

Steroid biosynthesis

2.80E-02

Isocitric acid, Ribulose-5-phosphate

Pyrimidine metabolism

3.67E-02

Malonic acid, Methylmalonic acid
