

**Table 5. ANOVA statistical analysis of dopa decarboxylase (DDC) in human cancers**

Tukey's Multiple Comparison Test	Mean Difference	q	P value	95% CI of difference
Pheochromocytoma vs Medullary Thyroid Carcinoma	15990	8.385	P < 0.001	6315 to 25660
Pheochromocytoma vs Breast Adenocarcinoma	31400	19.54	P < 0.001	23250 to 39550
Pheochromocytoma vs Colon Carcinoma	26100	16.44	P < 0.001	18040 to 34150
Pheochromocytoma vs Renal Cell Carcinoma	27650	14.5	P < 0.001	17980 to 37320
Pheochromocytoma vs Hepatocellular Carcinoma	30130	14.18	P < 0.001	19350 to 40910
Pheochromocytoma vs Ovarian Carcinoma	32220	18.2	P < 0.001	23230 to 41200
Pheochromocytoma vs Pancreatic Adenocarcinoma	32150	14.41	P < 0.001	20830 to 43460
Pheochromocytoma vs Prostate Adenocarcinoma	31030	24.73	P < 0.001	24670 to 37390
Pheochromocytoma vs Prostate Adeno Metastases	31270	15.33	P < 0.001	20920 to 41610
Pheochromocytoma vs Nonmalignant Lung Tumor	32240	14.45	P < 0.001	20920 to 43560
Pheochromocytoma vs Lung Adenocarcinoma	32010	26.01	P < 0.001	25770 to 38260
Pheochromocytoma vs NED Lung Adenocarcinoma	23170	12.49	P < 0.001	13760 to 32580
Pheochromocytoma vs Large Cell Lung Carcinoma	28220	11.11	P < 0.001	15330 to 41110
Pheochromocytoma vs Small Cell Lung Carcinoma	25150	11.83	P < 0.001	14360 to 35930
Pheochromocytoma vs Squamous Cell Lung Carcinoma	32300	23.02	P < 0.001	25180 to 39420
Pheochromocytoma vs Anaplastic Oligodendroglioma	32360	20.62	P < 0.001	24400 to 40320
Pheochromocytoma vs Glioblastoma Multiforme	32430	21.81	P < 0.001	24890 to 39980
Medullary Thyroid Carcinoma vs Breast Adenocarcinoma	15410	8.079	P < 0.001	5731 to 25080
Medullary Thyroid Carcinoma vs Ovarian Carcinoma	16230	7.927	P < 0.001	5842 to 26610
Medullary Thyroid Carcinoma vs Prostate Adenocarcinoma	15040	9.274	P < 0.001	6813 to 23270
Medullary Thyroid Carcinoma vs Prostate Adeno Metastases	15280	6.692	P < 0.001	3696 to 26860
Medullary Thyroid Carcinoma vs Lung Carcinoid	-18680	10.1	P < 0.001	-28060 to -9296
Medullary Thyroid Carcinoma vs Lung Adenocarcinoma	16020	9.994	P < 0.001	7890 to 24160
Medullary Thyroid Carcinoma vs Squamous Cell Lung Carcinoma	16310	9.377	P < 0.001	7487 to 25130
Medullary Thyroid Carcinoma vs Anaplastic Oligodendroglioma	16370	8.727	P < 0.001	6855 to 25890
Medullary Thyroid Carcinoma vs Glioblastoma Multiforme	16440	9.095	P < 0.001	7271 to 25610
Breast Adenocarcinoma vs Lung Carcinoid	-34090	22.16	P < 0.001	-41890 to -26280
Colon Carcinoma vs Lung Carcinoid	-28790	18.96	P < 0.001	-36490 to -21090
Renal Cell Carcinoma vs Lung Carcinoid	-30340	16.4	P < 0.001	-39720 to -20960
Hepatocellular Carcinoma vs Lung Carcinoid	-32820	15.82	P < 0.001	-43340 to -22300
Ovarian Carcinoma vs Lung Carcinoid	-34910	20.43	P < 0.001	-43570 to -26240
Pancreatic Adenocarcinoma vs Lung Carcinoid	-34840	15.96	P < 0.001	-45910 to -23770
Prostate Adenocarcinoma vs Lung Carcinoid	-33720	28.93	P < 0.001	-39630 to -27810
Prostate Adeno Metastases vs Lung Carcinoid	-33960	17.1	P < 0.001	-44030 to -23890
Nonmalignant Lung Tumor vs Lung Carcinoid	-34930	16.01	P < 0.001	-46000 to -23860
Lung Carcinoid vs Lung Adenocarcinoma	34700	30.44	P < 0.001	28920 to 40490
Lung Carcinoid vs NED Lung Adenocarcinoma	25860	14.4	P < 0.001	16750 to 34970
Lung Carcinoid vs Large Cell Lung Carcinoma	30910	12.38	P < 0.001	18240 to 43580
Lung Carcinoid vs Small Cell Lung Carcinoma	27840	13.42	P < 0.001	17310 to 38360
Lung Carcinoid vs Squamous Cell Lung Carcinoma	34990	26.42	P < 0.001	28270 to 41710
Lung Carcinoid vs Anaplastic Oligodendroglioma	35050	23.38	P < 0.001	27450 to 42660
Lung Carcinoid vs Glioblastoma Multiforme	35120	24.85	P < 0.001	27950 to 42290
Medullary Thyroid Carcinoma vs Hepatocellular Carcinoma	14140	5.989	P < 0.01	2162 to 26110
Medullary Thyroid Carcinoma vs Pancreatic Adenocarcinoma	16160	6.578	P < 0.01	3696 to 28620
Medullary Thyroid Carcinoma vs Nonmalignant Lung Tumor	16250	6.616	P < 0.01	3791 to 28710
Medullary Thyroid Carcinoma vs Colon Carcinoma	10110	5.345	P < 0.05	513.9 to 19700
Medullary Thyroid Carcinoma vs Renal Cell Carcinoma	11660	5.383	P < 0.05	670.6 to 22650
Lung Adenocarcinoma vs NED Lung Adenocarcinoma	-8844	5.738	P < 0.05	-16660 to -1025
NED Lung Adenocarcinoma vs Squamous Cell Lung Carcinoma	9131	5.428	P < 0.05	596.8 to 17660
NED Lung Adenocarcinoma vs Glioblastoma Multiforme	9262	5.284	P < 0.05	369.8 to 18150
Pheochromocytoma vs Lung Carcinoid	-2690	1.749	P > 0.05	-10490 to 5113
Medullary Thyroid Carcinoma vs NED Lung Adenocarcinoma	7180	3.386	P > 0.05	-3578 to 17940
Medullary Thyroid Carcinoma vs Large Cell Lung Carcinoma	12230	4.464	P > 0.05	-1670 to 26130
Medullary Thyroid Carcinoma vs Small Cell Lung Carcinoma	9156	3.879	P > 0.05	-2820 to 21130
Breast Adenocarcinoma vs Colon Carcinoma	-5300	3.339	P > 0.05	-13350 to 2753
Breast Adenocarcinoma vs Renal Cell Carcinoma	-3746	1.964	P > 0.05	-13420 to 5928
Breast Adenocarcinoma vs Hepatocellular Carcinoma	-1269	0.5969	P > 0.05	-12050 to 9513
Breast Adenocarcinoma vs Ovarian Carcinoma	819.7	0.963	P > 0.05	-8161 to 9800
Breast Adenocarcinoma vs Pancreatic Adenocarcinoma	751.1	0.3367	P > 0.05	-10570 to 12070
Breast Adenocarcinoma vs Prostate Adenocarcinoma	-365.8	0.2915	P > 0.05	-6730 to 5999
Breast Adenocarcinoma vs Prostate Adeno Metastases	-126.2	0.06187	P > 0.05	-10470 to 10220
Breast Adenocarcinoma vs Nonmalignant Lung Tumor	845.5	0.379	P > 0.05	-10470 to 12160
Breast Adenocarcinoma vs Lung Adenocarcinoma	617.7	0.5019	P > 0.05	-5626 to 6862
Breast Adenocarcinoma vs NED Lung Adenocarcinoma	-8226	4.434	P > 0.05	-17640 to 1185
Breast Adenocarcinoma vs Large Cell Lung Carcinoma	-3175	1.25	P > 0.05	-16060 to 9711
Breast Adenocarcinoma vs Small Cell Lung Carcinoma	-6250	2.941	P > 0.05	-17030 to 4531
Breast Adenocarcinoma vs Squamous Cell Lung Carcinoma	904.9	0.6448	P > 0.05	-6215 to 8025
Breast Adenocarcinoma vs Anaplastic Oligodendroglioma	966.5	0.6158	P > 0.05	-6996 to 8929
Breast Adenocarcinoma vs Glioblastoma Multiforme	1036	0.6966	P > 0.05	-6509 to 8581
Colon Carcinoma vs Renal Cell Carcinoma	1554	0.8217	P > 0.05	-8038 to 11150
Colon Carcinoma vs Hepatocellular Carcinoma	4031	1.91	P > 0.05	-6677 to 14740
Colon Carcinoma vs Ovarian Carcinoma	6119	3.491	P > 0.05	-2773 to 15010
Colon Carcinoma vs Pancreatic Adenocarcinoma	6051	2.729	P > 0.05	-5197 to 17300
Colon Carcinoma vs Prostate Adenocarcinoma	4934	4.012	P > 0.05	-1305 to 11170
Colon Carcinoma vs Prostate Adeno Metastases	5173	2.556	P > 0.05	-5094 to 15440
Colon Carcinoma vs Nonmalignant Lung Tumor	6145	2.772	P > 0.05	-5103 to 17390
Colon Carcinoma vs Lung Adenocarcinoma	5917	4.908	P > 0.05	-198.6 to 12030
Colon Carcinoma vs NED Lung Adenocarcinoma	-2926	1.592	P > 0.05	-12250 to 6400
Colon Carcinoma vs Large Cell Lung Carcinoma	2124	0.8403	P > 0.05	-10700 to 14950
Colon Carcinoma vs Small Cell Lung Carcinoma	-950.5	0.4503	P > 0.05	-11660 to 9757
Colon Carcinoma vs Squamous Cell Lung Carcinoma	6204	4.492	P > 0.05	-803.2 to 13210
Colon Carcinoma vs Anaplastic Oligodendroglioma	6266	4.043	P > 0.05	-1596 to 14130
Colon Carcinoma vs Glioblastoma Multiforme	6336	4.32	P > 0.05	-1104 to 13780
Renal Cell Carcinoma vs Hepatocellular Carcinoma	2477	1.049	P > 0.05	-9498 to 14450
Renal Cell Carcinoma vs Ovarian Carcinoma	4566	2.231	P > 0.05	-5818 to 14950

Renal Cell Carcinoma vs Pancreatic Adenocarcinoma	4497	1.831	P > 0.05	-7964 to 16960
Renal Cell Carcinoma vs Prostate Adenocarcinoma	3380	2.084	P > 0.05	-4847 to 11610
Renal Cell Carcinoma vs Prostate Adeno Metastases	3620	1.585	P > 0.05	-7964 to 15200
Renal Cell Carcinoma vs Nonmalignant Lung Tumor	4591	1.869	P > 0.05	-7869 to 17050
Renal Cell Carcinoma vs Lung Adenocarcinoma	4364	2.722	P > 0.05	-3770 to 12500
Renal Cell Carcinoma vs NED Lung Adenocarcinoma	-4480	2.113	P > 0.05	-15240 to 6278
Renal Cell Carcinoma vs Large Cell Lung Carcinoma	570.6	0.2082	P > 0.05	-13330 to 14470
Renal Cell Carcinoma vs Small Cell Lung Carcinoma	-2504	1.061	P > 0.05	-14480 to 9471
Renal Cell Carcinoma vs Squamous Cell Lung Carcinoma	4651	2.674	P > 0.05	-4173 to 13470
Renal Cell Carcinoma vs Anaplastic Oligodendrogloma	4712	2.512	P > 0.05	-4805 to 14230
Renal Cell Carcinoma vs Glioblastoma Multiforme	4782	2.645	P > 0.05	-4389 to 13950
Hepatocellular Carcinoma vs Ovarian Carcinoma	2088	0.9275	P > 0.05	-9334 to 13510
Hepatocellular Carcinoma vs Pancreatic Adenocarcinoma	2020	0.7682	P > 0.05	-11320 to 15360
Hepatocellular Carcinoma vs Prostate Adenocarcinoma	902.8	0.4819	P > 0.05	-8601 to 10410
Hepatocellular Carcinoma vs Prostate Adeno Metastases	1142	0.4628	P > 0.05	-11380 to 13670
Hepatocellular Carcinoma vs Nonmalignant Lung Tumor	2114	0.804	P > 0.05	-11220 to 15450
Hepatocellular Carcinoma vs Lung Adenocarcinoma	1886	1.015	P > 0.05	-7537 to 11310
Hepatocellular Carcinoma vs NED Lung Adenocarcinoma	-6957	3	P > 0.05	-18720 to 4806
Hepatocellular Carcinoma vs Large Cell Lung Carcinoma	-1907	0.6584	P > 0.05	-16600 to 12790
Hepatocellular Carcinoma vs Small Cell Lung Carcinoma	-4982	1.961	P > 0.05	-17870 to 7904
Hepatocellular Carcinoma vs Squamous Cell Lung Carcinoma	2173	1.1	P > 0.05	-7852 to 12200
Hepatocellular Carcinoma vs Anaplastic Oligodendrogloma	2235	1.066	P > 0.05	-8405 to 12880
Hepatocellular Carcinoma vs Glioblastoma Multiforme	2305	1.132	P > 0.05	-8027 to 12640
Ovarian Carcinoma vs Pancreatic Adenocarcinoma	-68.57	0.02916	P > 0.05	-12000 to 11860
Ovarian Carcinoma vs Prostate Adenocarcinoma	-1185	0.8128	P > 0.05	-8584 to 6213
Ovarian Carcinoma vs Prostate Adeno Metastases	-945.9	0.4358	P > 0.05	-11960 to 10070
Ovarian Carcinoma vs Nonmalignant Lung Tumor	25.79	0.01096	P > 0.05	-11900 to 11960
Ovarian Carcinoma vs Lung Adenocarcinoma	-202	0.1405	P > 0.05	-7497 to 7093
Ovarian Carcinoma vs NED Lung Adenocarcinoma	-9046	4.526	P > 0.05	-19180 to 1093
Ovarian Carcinoma vs Large Cell Lung Carcinoma	-3995	1.509	P > 0.05	-17420 to 9432
Ovarian Carcinoma vs Small Cell Lung Carcinoma	-7070	3.14	P > 0.05	-18490 to 4352
Ovarian Carcinoma vs Squamous Cell Lung Carcinoma	85.16	0.05362	P > 0.05	-7972 to 8143
Ovarian Carcinoma vs Anaplastic Oligodendrogloma	146.8	0.08452	P > 0.05	-8664 to 8958
Ovarian Carcinoma vs Glioblastoma Multiforme	216.4	0.1302	P > 0.05	-8220 to 8652
Pancreatic Adenocarcinoma vs Prostate Adenocarcinoma	-1117	0.5605	P > 0.05	-11230 to 8992
Pancreatic Adenocarcinoma vs Prostate Adeno Metastases	-877.3	0.3427	P > 0.05	-13870 to 12110
Pancreatic Adenocarcinoma vs Nonmalignant Lung Tumor	94.36	0.03475	P > 0.05	-13680 to 13870
Pancreatic Adenocarcinoma vs Lung Adenocarcinoma	-133.4	0.06746	P > 0.05	-10170 to 9900
Pancreatic Adenocarcinoma vs NED Lung Adenocarcinoma	-8977	3.716	P > 0.05	-21230 to 3280
Pancreatic Adenocarcinoma vs Large Cell Lung Carcinoma	-3926	1.32	P > 0.05	-19020 to 11160
Pancreatic Adenocarcinoma vs Small Cell Lung Carcinoma	-7001	2.663	P > 0.05	-20340 to 6337
Pancreatic Adenocarcinoma vs Squamous Cell Lung Carcinoma	153.7	0.07357	P > 0.05	-10450 to 10750
Pancreatic Adenocarcinoma vs Anaplastic Oligodendrogloma	215.4	0.09769	P > 0.05	-10970 to 11400
Pancreatic Adenocarcinoma vs Glioblastoma Multiforme	285	0.1328	P > 0.05	-10610 to 11180
Prostate Adenocarcinoma vs Prostate Adeno Metastases	239.6	0.135	P > 0.05	-8766 to 9245
Prostate Adenocarcinoma vs Nonmalignant Lung Tumor	1211	0.6079	P > 0.05	-8897 to 11320
Prostate Adenocarcinoma vs Lung Adenocarcinoma	983.5	1.38	P > 0.05	-2632 to 4599
Prostate Adenocarcinoma vs NED Lung Adenocarcinoma	-7860	5.038	P > 0.05	-15780 to 54.98
Prostate Adenocarcinoma vs Large Cell Lung Carcinoma	-2810	1.204	P > 0.05	-14650 to 9029
Prostate Adenocarcinoma vs Small Cell Lung Carcinoma	-5884	3.141	P > 0.05	-15390 to 3620
Prostate Adenocarcinoma vs Squamous Cell Lung Carcinoma	1271	1.295	P > 0.05	-3707 to 6248
Prostate Adenocarcinoma vs Anaplastic Oligodendrogloma	1332	1.104	P > 0.05	-4791 to 7455
Prostate Adenocarcinoma vs Glioblastoma Multiforme	1402	1.277	P > 0.05	-4168 to 6971
Prostate Adeno Metastases vs Nonmalignant Lung Tumor	971.7	0.3795	P > 0.05	-12020 to 13960
Prostate Adeno Metastases vs Lung Adenocarcinoma	743.9	0.423	P > 0.05	-8177 to 9664
Prostate Adeno Metastases vs NED Lung Adenocarcinoma	-8100	3.616	P > 0.05	-19460 to 3265
Prostate Adeno Metastases vs Large Cell Lung Carcinoma	-3049	1.076	P > 0.05	-17420 to 11330
Prostate Adeno Metastases vs Small Cell Lung Carcinoma	-6124	2.481	P > 0.05	-18650 to 6399
Prostate Adeno Metastases vs Squamous Cell Lung Carcinoma	1031	0.5475	P > 0.05	-8523 to 10590
Prostate Adeno Metastases vs Anaplastic Oligodendrogloma	1093	0.5436	P > 0.05	-9105 to 11290
Prostate Adeno Metastases vs Glioblastoma Multiforme	1162	0.5971	P > 0.05	-8713 to 11040
Nonmalignant Lung Tumor vs Lung Adenocarcinoma	-227.8	0.1152	P > 0.05	-10260 to 9805
Nonmalignant Lung Tumor vs NED Lung Adenocarcinoma	-9071	3.755	P > 0.05	-21330 to 3186
Nonmalignant Lung Tumor vs Large Cell Lung Carcinoma	-4021	1.352	P > 0.05	-19110 to 11070
Nonmalignant Lung Tumor vs Small Cell Lung Carcinoma	-7096	2.699	P > 0.05	-20430 to 6243
Nonmalignant Lung Tumor vs Squamous Cell Lung Carcinoma	59.38	0.02842	P > 0.05	-10540 to 10660
Nonmalignant Lung Tumor vs Anaplastic Oligodendrogloma	121	0.05489	P > 0.05	-11060 to 11300
Nonmalignant Lung Tumor vs Glioblastoma Multiforme	190.6	0.0888	P > 0.05	-10700 to 11080
Lung Adenocarcinoma vs Large Cell Lung Carcinoma	-3793	1.634	P > 0.05	-15570 to 7981
Lung Adenocarcinoma vs Small Cell Lung Carcinoma	-6868	3.697	P > 0.05	-16290 to 2556
Lung Adenocarcinoma vs Squamous Cell Lung Carcinoma	287.2	0.3021	P > 0.05	-4535 to 5109
Lung Adenocarcinoma vs Anaplastic Oligodendrogloma	348.8	0.295	P > 0.05	-5648 to 6346
Lung Adenocarcinoma vs Glioblastoma Multiforme	418.4	0.3908	P > 0.05	-5013 to 5850
NED Lung Adenocarcinoma vs Large Cell Lung Carcinoma	5051	1.868	P > 0.05	-8668 to 18770
NED Lung Adenocarcinoma vs Small Cell Lung Carcinoma	1976	0.8521	P > 0.05	-9788 to 13740
NED Lung Adenocarcinoma vs Anaplastic Oligodendrogloma	9192	5.042	P > 0.05	-56.46 to 18440
Large Cell Lung Carcinoma vs Small Cell Lung Carcinoma	-3075	1.062	P > 0.05	-17770 to 11620
Large Cell Lung Carcinoma vs Squamous Cell Lung Carcinoma	4080	1.688	P > 0.05	-8180 to 16340
Large Cell Lung Carcinoma vs Anaplastic Oligodendrogloma	4142	1.646	P > 0.05	-8627 to 16910
Large Cell Lung Carcinoma vs Glioblastoma Multiforme	4211	1.707	P > 0.05	-8301 to 16720
Small Cell Lung Carcinoma vs Squamous Cell Lung Carcinoma	7155	3.621	P > 0.05	-2870 to 17180
Small Cell Lung Carcinoma vs Anaplastic Oligodendrogloma	7217	3.441	P > 0.05	-3424 to 17860
Small Cell Lung Carcinoma vs Glioblastoma Multiforme	7286	3.578	P > 0.05	-3046 to 17620
Squamous Cell Lung Carcinoma vs Anaplastic Oligodendrogloma	61.63	0.04528	P > 0.05	-6843 to 6966
Squamous Cell Lung Carcinoma vs Glioblastoma Multiforme	131.3	0.1037	P > 0.05	-6288 to 6550
Anaplastic Oligodendrogloma vs Glioblastoma Multiforme	69.63	0.04811	P > 0.05	-7273 to 7412