

Protein name	HL60_average area	HL60_control_average area	HL60_control/HB60
sp B0I1T2 MYO1G_HUMAN	8409.633333	91305.333333	10.85723119
sp O00567 NOP56_HUMAN	23990.66667	174806.6667	7.286444729
sp O43143 DHX15_HUMAN	20417.33333	29113.66667	1.425928949
sp O43175 SERA_HUMAN	28938	44813.33333	1.548598152
sp O43390 HNRPR_HUMAN	28547	101486.6667	3.555072921
sp O75390 CISY_HUMAN	20934.66667	47323	2.260508885
sp P00367 DHE3_HUMAN	17750	37154.66667	2.093220657
sp P00505 AATM_HUMAN	22307.33333	22923.33333	10.27614237
sp P04040 CATA_HUMAN	55763.66667	163823.3333	2.937814945
sp P04075 ALDOA_HUMAN	23193.33333	251770	10.8552745
sp P04264 K2C1_HUMAN	22996	174803.3333	7.601466922
sp P04406 G3P_HUMAN	109117	248256.6667	2.275141973
sp P04843 RPN1_HUMAN	58945.33333	609210	10.33516931
sp P04844 RPN2_HUMAN	85087.66667	314123.3333	3.691761046
sp P05023 AT1A1_HUMAN	19333	2446.666667	0.126553906
sp P05107 ITB2_HUMAN	15080.33333	21046	1.395592494
sp P05164 PERM_HUMAN	107027	387430	3.619927682
sp P05455 LA_HUMAN	30615.33333	66297.66667	2.165505302
sp P06576 ATPB_HUMAN	39629	16302	0.411365414
sp P07237 PDIA1_HUMAN	96988	124750	1.286241597
sp P07814 SYEP_HUMAN	2751.033333	599.6666667	0.217978699
sp P07910 HNRPC_HUMAN	33458.33667	87193	2.606017175
sp P08133 ANXA6_HUMAN	29204.33333	4464.666667	0.152876856
sp P08238 HS90B_HUMAN	171906.6667	273943.3333	1.593555852
sp P08865 RSSA_HUMAN	93109	92911.33333	0.99787704
sp P09874 PARP1_HUMAN	15902.66667	26617.33333	1.673765406
sp P10809 CH60_HUMAN	150347.6667	35004.666667	0.232824808
sp P11021 GRP78_HUMAN	20894.66667	87528.33333	4.189027503
sp P11142 HSP7C_HUMAN	35839.33333	64768	1.807176473
sp P11177 ODPB_HUMAN	11536.66667	22646.66667	1.963016469
sp P11586 C1TC_HUMAN	7149.163333	17212.66667	2.407647701
sp P11940 PABP1_HUMAN	29610	3100	0.10469436
sp P12268 IMDH2_HUMAN	57325	30360.66667	0.529623492
sp P12956 XRCC6_HUMAN	9801.806667	45689	4.661283532
sp P13639 EF2_HUMAN	21519.98667	12187	0.56631076
sp P14618 KPYM_HUMAN	104629.3333	33044	0.315819655
sp P14625 ENPL_HUMAN	202253.3333	41801	0.206676445
sp P14866 HNRPL_HUMAN	29198.33333	50137	1.717118557
sp P14868 SYDC_HUMAN	27863.66667	68787.33333	2.468710746
sp P15144 AMPN_HUMAN	10366.66667	10625.3	1.024948553
sp P17980 PRS6A_HUMAN	8428.533333	84221.33333	9.992406745
sp P17987 TCPA_HUMAN	38845	5459.333333	0.140541468
sp P19338 NUCL_HUMAN	73695.66667	34071.66667	0.462329309
sp P22234 PUR6_HUMAN	11705.76667	7775.666667	0.664259496
sp P22314 UBA1_HUMAN	11348.93333	22278	1.963003865
sp P22626 ROA2_HUMAN	68230	26223.66667	0.384342176
sp P23246 SFPQ_HUMAN	33072.66667	198570	6.004051684
sp P23396 RS3_HUMAN	39376.33333	79331.66667	2.014704264
sp P23526 SAHH_HUMAN	17644.93333	51833.33333	2.937576037
sp P24752 THIL_HUMAN	41481.66667	285726.6667	6.888022821
sp P25205 MCM3_HUMAN	34700.33333	225396.6667	6.495518775

**Supplementary Figure 1.** Liquid chromatography-mass spectrometry determined the differential expression of protein with and without the treatment of  $\text{As}_2\text{O}_3$ . The column 1 represented the protein name. The column 2 represented the protein level in the treatment group. The column 3 represented the protein level in the control group. The column 4 represented the ratio between treatment and control group. The ratio more than 1 means the decreasing expression, while the ratio less than 1 means the increasing expression. The proteins highlighted in red were conducted the secondary spectrometry analysis.

Protein name	HL60_average area	HL60_control_average area	HL60_control/HB60
sp P25705 ATPA_HUMAN	250260	2725266.667	10.88974134
sp P27824 CALX_HUMAN	140900	1186166.667	8.418500118
sp P30101 PDIA3_HUMAN	105350	227216.6667	2.156778991
sp P31943 HNRH1_HUMAN	111830	98996	0.88523652
sp P31948 STIP1_HUMAN	7429.283333	14413	1.940025619
sp P33991 MCM4_HUMAN	19084.66667	186026.3333	9.747423761
sp P34897 GLYM_HUMAN	69059.66667	77238.33333	1.118428991
sp P35579 MYH9_HUMAN	8761.566667	17111	1.952961228
sp P38646 GRP75_HUMAN	16730	4271	0.255289898
sp P38919 IF4A3_HUMAN	18903.33333	44076.66667	2.331687533
sp P40939 ECHA_HUMAN	45414.66667	68590	1.510305041
sp P41252 SYIC_HUMAN	12444	13159	1.057457409
sp P42704 LPPRC_HUMAN	7420.1	19496.66667	2.627547697
sp P48643 TCPE_HUMAN	12555.66667	16847	1.341784586
sp P48735 IDHP_HUMAN	47322	17059	0.360487722
sp P49411 EFTU_HUMAN	50460.33333	62392	1.236456358
sp P49736 MCM2_HUMAN	12693	2631	0.207279603
sp P50990 TCPQ_HUMAN	21535.66667	56006.66667	2.600646989
sp P51149 RAB7A_HUMAN	44984	9966.33333	0.221552848
sp P52209 6PGD_HUMAN	29876.66667	3648.66667	0.122124289
sp P54136 SYRC_HUMAN	9795.23333	50975.66667	5.2041299
sp P54577 SYYC_HUMAN	40764.66667	272096.6667	6.674816426
sp P55084 ECHB_HUMAN	30758	315896.6667	10.27039036
sp P56192 SYMC_HUMAN	29077.33333	220716.6667	7.590677733
sp P60842 IF4A1_HUMAN	55424.33333	481510	8.687700348
sp P61160 ARP2_HUMAN	8919.266667	30346.33333	3.40233502
sp P61604 CH10_HUMAN	410530	1022800	2.491413539
sp P62937 PPIA_HUMAN	242726.6667	113380	0.467109781
sp P68104 EF1A1_HUMAN	485396.6667	74838	0.154179056
sp P78371 TCPB_HUMAN	19023	39646.66667	2.084143756
sp P78527 PRKDC_HUMAN	3570.543333	8049.33333	2.254372117
sp Q06830 PRDX1_HUMAN	173000	152396.6667	0.880905588
sp Q07955 SRSF1_HUMAN	39144.66667	126126.6667	3.22206516
sp Q08211 DHX9_HUMAN	65332.33333	182210	2.78897126
sp Q13263 TIF1B_HUMAN	31611	23111.33333	0.731116805
sp Q14566 MCM6_HUMAN	38813.66667	39732	1.023660051
sp Q15046 SYK_HUMAN	14873.3	37455	2.518270996
sp Q15366 PCBP2_HUMAN	14683.06667	53019.66667	3.610939586
sp Q16891 IMMT_HUMAN	3925.956667	19717.66667	5.022385202
sp Q7KZF4 SND1_HUMAN	7928.653333	18724.66667	2.361645273
sp Q86UX7 URP2_HUMAN	15506.33333	61741	3.981663406
sp Q92608 DOCK2_HUMAN	14670	131313.3333	8.951147466
sp Q92841 DDX17_HUMAN	355426.6667	48938	0.137688037
sp Q99832 TCPH_HUMAN	53391.33333	57934	1.085082473
sp Q99880 H2B1L_HUMAN	2195366.667	758013.3333	2.896211148
sp Q9BSJ8 ESYT1_HUMAN	8020.546667	14282	1.780676629
sp Q9HDC9 APMAP_HUMAN	26746.33333	22238	0.83144107
sp Q9UQ80 PA2G4_HUMAN	37958.66667	47978	1.263953774
sp Q9UQE7 SMC3_HUMAN	8553.533333	12037	1.407254702
sp Q9Y230 RUVB2_HUMAN	44003.66667	8770.366667	0.199309906

**Supplementary Figure 1.** Liquid chromatography-mass spectrometry determined the differential expression of protein with and without the treatment of  $\text{As}_2\text{O}_3$ . The column 1 represented the protein name. The column 2 represented the protein level in the treatment group. The column 3 represented the protein level in the control group. The column 4 represented the ratio between treatment and control group. The ratio more than 1 means the decreasing expression, while the ratio less than 1 means the increasing expression. The proteins highlighted in red were conducted the secondary spectrometry analysis.