**Table S3 Bactrian camel SP-induced ovulation down-regulated differential protein list of ovarian tissues**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Protein\_ID | gene | Mass | Protein\_  Coverage | Uniq\_  Pep\_  Num | Uniq\_  Spec\_  Num | Mean\_Ratio  \_treated  -VS-control | SD\_treated-  VS-control | Quant\_No  \_treated-VS-control | Pvalue\_treated-  VS-control |
| XP\_010956945.1 | ELMO2 | 82942.4 | 0.082 | 5 | 7 | 0.83 | 0.116 | 9 | 0.003508 |
| XP\_010947665.1 | LAP2 | 146426 | 0.015 | 2 | 2 | 0.72 | 0.321 | 9 | 0.04316 |
| XP\_010960214.1 | NAT14 | 21915.6 | 0.049 | 1 | 1 | 0.74 | 0.059 | 9 | 2.85E-06 |
| XP\_010956110.1 | ESPN | 57139.6 | 0.01 | 1 | 1 | 0.79 | 0.188 | 9 | 0.008237 |
| XP\_010964587.1 | LPAAT1 | 31814.11 | 0.022 | 1 | 1 | 0.76 | 0.364 | 9 | 0.04943 |
| XP\_010968477.1 | DT | 413332.6 | 0.048 | 5 | 6 | 0.81 | 0.125 | 9 | 0.002864 |
| XP\_010949080.1 | S7 | 27811.5 | 0.103 | 2 | 2 | 0.83 | 0.151 | 9 | 0.00947 |
| XP\_010949603.1 | NEFL | 100795 | 0.025 | 1 | 1 | 0.78 | 0.292 | 9 | 0.04042 |
| XP\_010946614.1 | Wnt2b | 39111.7 | 0.088 | 3 | 5 | 0.83 | 0.197 | 9 | 0.03151 |
| XP\_010951710.1 | MCAM | 71335.16 | 0.097 | 6 | 8 | 0.79 | 0.195 | 9 | 0.01312 |
| XP\_010944991.1 | Rint1 | 91359.21 | 0.009 | 1 | 1 | 0.75 | 0.175 | 9 | 0.003451 |
| XP\_010945878.1 | ARF5 | 20612.61 | 0.267 | 1 | 1 | 0.75 | 0.293 | 9 | 0.03062 |
| XP\_010951309.1 | BRPF1 | 138985.9 | 0.006 | 1 | 1 | 0.81 | 0.243 | 9 | 0.03379 |
| XP\_010962783.1 | WASH1 | 50649.3 | 0.062 | 3 | 3 | 0.68 | 0.237 | 9 | 0.004151 |
| XP\_010950191.1 | c-Rel | 66234.18 | 0.015 | 1 | 2 | 0.77 | 0.273 | 9 | 0.04639 |
| AMT92207.1 |  | 14686.93 | 0.167 | 1 | 3 | 0.77 | 0.268 | 9 | 0.03278 |
| XP\_010962636.1 | KRT1 | 58011.2 | 0.064 | 2 | 2 | 0.66 | 0.297 | 9 | 0.008686 |
| XP\_010946694.1 | TSTD3 | 18132.4 | 0.05 | 1 | 1 | 0.83 | 0.13 | 9 | 0.005728 |
| XP\_010964105.1 | CDK19 | 55443.13 | 0.033 | 2 | 2 | 0.83 | 0.144 | 9 | 0.009688 |
| XP\_010964436.1 | PTPP | 41532.84 | 0.038 | 1 | 1 | 0.74 | 0.333 | 9 | 0.04639 |
| XP\_010964602.1 | FST | 40088.26 | 0.064 | 2 | 2 | 0.75 | 0.276 | 9 | 0.02372 |
| XP\_010969598.1 | EXOC6 | 93167.6 | 0.016 | 1 | 1 | 0.64 | 0.241 | 9 | 0.003076 |
| XP\_010945841.1 | TMEM209 | 62909.49 | 0.048 | 2 | 2 | 0.81 | 0.108 | 9 | 0.00133 |
| XP\_010967364.1 | LOC105080173 | 67384.86 | 0.017 | 1 | 1 | 0.81 | 0.224 | 9 | 0.0369 |
| XP\_010965490.1 | ISPS | 44892.95 | 0.028 | 1 | 1 | 0.83 | 0.153 | 9 | 0.01316 |
| XP\_010964972.1 | Di-Ras1 | 22637.58 | 0.03 | 1 | 1 | 0.71 | 0.249 | 9 | 0.009938 |
| XP\_010953311.1 | DMTN | 43191.91 | 0.066 | 2 | 3 | 0.78 | 0.131 | 9 | 0.002007 |
| XP\_010966632.1 | SLMAP | 94038.99 | 0.023 | 2 | 4 | 0.78 | 0.179 | 9 | 0.008514 |
| XP\_010955588.1 | MLC1 | 41224.34 | 0.021 | 1 | 1 | 0.79 | 0.155 | 9 | 0.004319 |
| XP\_010951582.1 | SORBS2 | 159650.3 | 0.048 | 6 | 14 | 0.71 | 0.274 | 9 | 0.01022 |
| XP\_010969476.1 | Sorbs1 | 119493.2 | 0.152 | 14 | 20 | 0.78 | 0.202 | 9 | 0.0113 |
| XP\_010967575.1 | ATM | 355532.7 | 0.011 | 3 | 3 | 0.83 | 0.144 | 9 | 0.009045 |
| XP\_010968337.1 | SGCD | 32390.93 | 0.173 | 5 | 11 | 0.79 | 0.117 | 9 | 0.001075 |
| XP\_010957415.1 | LIMS1 | 45958.94 | 0.194 | 2 | 3 | 0.83 | 0.227 | 9 | 0.04161 |
| XP\_010950554.1 | GK | 60371.26 | 0.017 | 1 | 1 | 0.79 | 0.218 | 9 | 0.0199 |
| XP\_010949908.1 | LRR63 | 79248.87 | 0.013 | 1 | 1 | 0.81 | 0.222 | 9 | 0.02956 |
| XP\_010961882.1 | MVK | 42967.28 | 0.109 | 3 | 4 | 0.79 | 0.04 | 9 | 6.35E-07 |
| XP\_010958610.1 | CK1 | 47243.1 | 0.061 | 2 | 2 | 0.77 | 0.137 | 9 | 0.00197 |
| XP\_010944186.1 | CCK | 12824.42 | 0.078 | 1 | 1 | 0.67 | 0.407 | 9 | 0.01974 |
| XP\_010967324.1 | ALCAM | 65458.36 | 0.062 | 3 | 3 | 0.77 | 0.08 | 9 | 4.72E-05 |
| XP\_010949050.1 | MANA | 56890.72 | 0.022 | 1 | 1 | 0.74 | 0.274 | 9 | 0.02264 |
| XP\_010953662.1 | TRIM47 | 93000.89 | 0.055 | 3 | 3 | 0.81 | 0.086 | 9 | 0.000267 |
| XP\_010971659.1 | MED17 | 73130.66 | 0.017 | 1 | 1 | 0.78 | 0.1 | 9 | 0.000375 |
| XP\_010968301.1 | GPX3 | 25687.08 | 0.319 | 6 | 20 | 0.71 | 0.165 | 9 | 0.002564 |
| XP\_010962933.1 | TSPAN11 | 28692.44 | 0.028 | 1 | 1 | 0.71 | 0.173 | 9 | 0.00181 |
| XP\_010963840.1 | L3MBTL3 | 86760.43 | 0.016 | 1 | 1 | 0.82 | 0.152 | 9 | 0.009266 |
| XP\_010966803.1 | GGTB | 61885.21 | 0.016 | 1 | 1 | 0.8 | 0.072 | 9 | 5.37E-05 |
| XP\_010946683.1 | P400 | 302734 | 0.008 | 2 | 2 | 0.74 | 0.127 | 9 | 0.000675 |
| XP\_010945936.1 | TESTIN | 49796.58 | 0.154 | 5 | 6 | 0.81 | 0.129 | 9 | 0.002974 |
| XP\_010944878.1 | PRELP | 44539.68 | 0.497 | 20 | 160 | 0.83 | 0.208 | 9 | 0.03446 |
| XP\_010954554.1 | LMOD1 | 55356.34 | 0.114 | 6 | 13 | 0.79 | 0.148 | 9 | 0.003457 |
| XP\_010950489.1 | TINAGL1 | 53610.47 | 0.148 | 5 | 11 | 0.78 | 0.165 | 9 | 0.005322 |
| XP\_010963654.1 | TNFAIP8L3 | 24997.11 | 0.037 | 1 | 1 | 0.77 | 0.153 | 9 | 0.003517 |
| XP\_010959025.1 | HOXD8 | 12870.67 | 0.094 | 1 | 2 | 0.82 | 0.205 | 9 | 0.03127 |
| XP\_010955618.1 | SCO2 | 29996.52 | 0.071 | 1 | 1 | 0.75 | 0.301 | 9 | 0.04767 |
| XP\_010959215.1 | ZCCHC3 | 30211.72 | 0.037 | 1 | 1 | 0.78 | 0.241 | 9 | 0.02549 |
| XP\_010949354.1 | septin-4 | 38879.85 | 0.073 | 1 | 1 | 0.78 | 0.095 | 9 | 0.00027 |
| XP\_010970276.1 | NIPSNAP1 | 18082.21 | 0.248 | 1 | 1 | 0.81 | 0.088 | 9 | 0.000431 |
| XP\_010960883.1 | NUMB | 65090.51 | 0.042 | 2 | 2 | 0.76 | 0.144 | 9 | 0.002869 |
| XP\_010963168.1 | ZBED5 | 80064.88 | 0.009 | 1 | 1 | 0.69 | 0.534 | 9 | 0.03582 |
| XP\_010957046.1 | DHX35 | 79486.28 | 0.017 | 1 | 1 | 0.64 | 0.147 | 9 | 0.000416 |
| XP\_010949660.1 | PATZ | 72620.88 | 0.018 | 1 | 1 | 0.81 | 0.187 | 9 | 0.01621 |
| XP\_010955047.1 | ALDH3B1 | 52474.8 | 0.026 | 1 | 1 | 0.71 | 0.143 | 9 | 0.000533 |
| XP\_010963746.1 | LAMA4 | 205018.3 | 0.104 | 18 | 23 | 0.79 | 0.136 | 9 | 0.002195 |
| XP\_010955670.1 | RPL11 | 19194.19 | 0.216 | 3 | 8 | 0.8 | 0.175 | 9 | 0.01065 |
| XP\_010954506.1 | NR5A1 | 47909.26 | 0.026 | 1 | 1 | 0.5 | 0.222 | 9 | 0.001838 |
| XP\_010962989.1 | PDX1 | 54447.78 | 0.044 | 2 | 2 | 0.83 | 0.232 | 9 | 0.03642 |
| XP\_010958013.1 | CLYBL | 38249.28 | 0.037 | 1 | 1 | 0.79 | 0.12 | 9 | 0.001114 |
| XP\_010959401.1 | MYH11 | 226805.5 | 0.346 | 59 | 190 | 0.72 | 0.147 | 9 | 0.000825 |
| XP\_010963102.1 | ABCC8 | 178015.3 | 0.003 | 1 | 1 | 0.74 | 0.254 | 9 | 0.02385 |
| XP\_010956520.1 | VPS4A | 95150.34 | 0.01 | 1 | 1 | 0.56 | 0.295 | 9 | 0.00617 |
| XP\_010947851.1 | GLRX1 | 12125.23 | 0.113 | 2 | 3 | 0.83 | 0.147 | 9 | 0.008771 |
| XP\_010952841.1 | LIMS2 | 40680.32 | 0.158 | 1 | 1 | 0.79 | 0.247 | 9 | 0.03462 |
| XP\_010962644.1 | KRT1 | 62465.73 | 0.088 | 3 | 9 | 0.71 | 0.19 | 9 | 0.004437 |
| XP\_010959856.1 | PPP1R10 | 98159.5 | 0.011 | 1 | 1 | 0.59 | 0.319 | 9 | 0.009315 |
| XP\_010952947.1 | C2orf76 | 14880.78 | 0.056 | 1 | 1 | 0.77 | 0.261 | 9 | 0.03667 |
| XP\_010944727.1 | Ybx3 | 53131.57 | 0.061 | 1 | 1 | 0.69 | 0.3 | 9 | 0.029 |
| XP\_010971132.1 | MVI | 146165.7 | 0.126 | 14 | 20 | 0.81 | 0.095 | 9 | 0.000411 |
| XP\_010967959.1 | ANAPC7 | 67163.91 | 0.015 | 1 | 1 | 0.71 | 0.111 | 9 | 0.000111 |
| XP\_010967496.1 | LAMB2 | 202622.7 | 0.172 | 27 | 38 | 0.82 | 0.125 | 9 | 0.002692 |
| XP\_010967757.1 | MYZAP | 53943.65 | 0.03 | 1 | 1 | 0.8 | 0.214 | 9 | 0.02093 |
| ADG03660.1 |  | 11895.45 | 0.154 | 1 | 3 | 0.72 | 0.355 | 9 | 0.03764 |
| XP\_010960955.1 | ZNF410 | 52594.04 | 0.031 | 1 | 1 | 0.83 | 0.241 | 9 | 0.04347 |
| XP\_010947392.1 | PFDN6 | 14555.79 | 0.202 | 3 | 8 | 0.8 | 0.147 | 9 | 0.005876 |
| XP\_010949648.1 | smoothelin | 97707.59 | 0.102 | 7 | 7 | 0.7 | 0.246 | 9 | 0.0063 |
| XP\_010972181.1 | PYCR2 | 27296.21 | 0.281 | 2 | 3 | 0.65 | 0.218 | 9 | 0.001938 |
| XP\_010947544.1 | MSH3 | 128147.3 | 0.021 | 2 | 2 | 0.82 | 0.067 | 9 | 6.54E-05 |
| XP\_010958915.1 | PNPLA7 | 150701.1 | 0.022 | 1 | 1 | 0.76 | 0.172 | 9 | 0.006996 |
| XP\_010961454.1 | CAMK2G | 64653.61 | 0.113 | 2 | 3 | 0.75 | 0.138 | 9 | 0.000923 |
| XP\_010966335.1 | KRT17 | 40049.28 | 0.104 | 1 | 1 | 0.76 | 0.141 | 9 | 0.001401 |
| XP\_010967644.1 | PPBP | 13080.11 | 0.067 | 1 | 2 | 0.79 | 0.301 | 9 | 0.0447 |
| XP\_010954259.1 | DDX31 | 80431.49 | 0.018 | 1 | 1 | 0.79 | 0.237 | 9 | 0.02116 |
| XP\_010966285.1 | MRPL19 | 33282.16 | 0.038 | 1 | 1 | 0.79 | 0.063 | 9 | 1.85E-05 |
| XP\_010949518.1 | ZER1 | 85836.48 | 0.018 | 1 | 1 | 0.83 | 0.18 | 9 | 0.02163 |
| XP\_010952232.1 | MSTO1 | 63046.86 | 0.012 | 1 | 1 | 0.76 | 0.122 | 9 | 0.00093 |
| XP\_010952399.1 | KCR1 | 56269.34 | 0.038 | 2 | 2 | 0.78 | 0.178 | 9 | 0.00529 |
| XP\_010961773.1 | RPS27L | 9794.985 | 0.155 | 1 | 3 | 0.78 | 0.206 | 9 | 0.01091 |
| XP\_010963398.1 | RyR3 | 557798.3 | 0.002 | 1 | 1 | 0.66 | 0.328 | 9 | 0.01306 |
| XP\_010949936.1 | XPO4 | 127611.2 | 0.006 | 1 | 1 | 0.76 | 0.172 | 9 | 0.003546 |
| XP\_010947126.1 | Desmin | 51694.15 | 0.522 | 22 | 107 | 0.77 | 0.205 | 9 | 0.01074 |
| XP\_010968782.1 | FBXO7 | 62252.79 | 0.073 | 3 | 4 | 0.79 | 0.064 | 9 | 2.82E-05 |
| XP\_010960563.1 | HSPA2 | 70059.92 | 0.341 | 13 | 23 | 0.82 | 0.105 | 9 | 0.001554 |
| XP\_010970457.1 | PGPEP1 | 24549.04 | 0.037 | 1 | 1 | 0.7 | 0.23 | 9 | 0.009259 |
| XP\_010953031.1 | MYO7 | 223955.3 | 0.008 | 1 | 1 | 0.8 | 0.252 | 9 | 0.04165 |
| XP\_010953249.1 | Lamc1 | 182806.8 | 0.185 | 23 | 54 | 0.8 | 0.184 | 9 | 0.01568 |
| XP\_010945811.1 | A4D1P6 | 84239.16 | 0.048 | 4 | 4 | 0.82 | 0.111 | 9 | 0.001512 |
| XP\_010959383.1 | NOB1 | 55164.32 | 0.018 | 1 | 1 | 0.61 | 0.242 | 9 | 0.003384 |
| XP\_010948772.1 | ZNF326 | 63045.64 | 0.045 | 2 | 2 | 0.83 | 0.13 | 9 | 0.004814 |
| XP\_010969708.1 | TTC21B | 142356.5 | 0.007 | 1 | 1 | 0.83 | 0.12 | 9 | 0.003472 |
| XP\_010951841.1 | CBL | 96686.06 | 0.013 | 1 | 1 | 0.83 | 0.102 | 9 | 0.001525 |
| XP\_010956347.1 | RMC1 | 68763.64 | 0.02 | 1 | 1 | 0.74 | 0.138 | 9 | 0.000765 |
| XP\_010952456.1 | OR | 36908.18 | 0.022 | 1 | 1 | 0.69 | 0.497 | 9 | 0.03684 |
| XP\_010955494.1 | TRIM32 | 73409.94 | 0.017 | 1 | 1 | 0.63 | 0.212 | 9 | 0.001277 |
| XP\_010972093.1 | LIN9 | 52456.01 | 0.011 | 1 | 1 | 0.59 | 0.323 | 9 | 0.009139 |
| XP\_010948554.1 | SHPK | 56500.32 | 0.041 | 1 | 1 | 0.78 | 0.061 | 9 | 1.25E-05 |
| XP\_010968229.1 | EPC1 | 80796 | 0.012 | 1 | 1 | 0.79 | 0.189 | 9 | 0.009126 |
| XP\_010959749.1 | PBX2 | 40567.93 | 0.041 | 1 | 1 | 0.83 | 0.123 | 9 | 0.003981 |
| XP\_010968409.1 | SVEP1 | 419995.7 | 0.003 | 1 | 1 | 0.73 | 0.328 | 9 | 0.0254 |
| XP\_010960112.1 | DCTN4 | 53235.98 | 0.141 | 5 | 8 | 0.83 | 0.1 | 9 | 0.001168 |
| XP\_010967344.1 | PRKCD | 78578.35 | 0.044 | 2 | 2 | 0.8 | 0.118 | 9 | 0.001884 |
| XP\_010963941.1 | HEBP2 | 22287.8 | 0.212 | 4 | 9 | 0.83 | 0.142 | 9 | 0.006272 |
| XP\_010950231.1 | EML6 | 218751.5 | 0.007 | 1 | 1 | 0.28 | 0.208 | 9 | 0.000207 |
| XP\_010953748.1 | DDT | 13506.16 | 0.371 | 4 | 24 | 0.76 | 0.138 | 9 | 0.00138 |
| XP\_010960174.1 | LENG8 | 90972.65 | 0.011 | 1 | 1 | 0.77 | 0.248 | 9 | 0.03507 |
| XP\_010956791.1 | RPRD2 | 100706.2 | 0.019 | 2 | 2 | 0.72 | 0.046 | 9 | 2.52E-07 |
| XP\_010960017.1 | ECHDC3 | 33467.27 | 0.029 | 1 | 3 | 0.77 | 0.192 | 9 | 0.009866 |
| XP\_010965034.1 | PLIN4 | 141622.1 | 0.034 | 4 | 5 | 0.8 | 0.181 | 9 | 0.0122 |
| XP\_010972498.1 | H2A | 14036.88 | 0.515 | 1 | 3 | 0.71 | 0.305 | 9 | 0.01351 |
| XP\_010972224.1 | BAG2 | 23756.22 | 0.123 | 3 | 3 | 0.72 | 0.077 | 9 | 1.65E-05 |
| XP\_010962375.1 | FLNA | 283276 | 0.45 | 88 | 341 | 0.82 | 0.206 | 9 | 0.02941 |
| XP\_010954253.1 | HMCN2 | 421525 | 0.006 | 2 | 2 | 0.74 | 0.153 | 9 | 0.001832 |
| XP\_010966017.1 | PLEKHH2 | 170067.8 | 0.003 | 1 | 1 | 0.74 | 0.114 | 9 | 0.000321 |
| XP\_010951950.1 | OSTC | 16899.85 | 0.081 | 1 | 1 | 0.8 | 0.221 | 9 | 0.02901 |
| XP\_010963267.1 | CAVIN3 | 27350.33 | 0.41 | 9 | 15 | 0.77 | 0.23 | 9 | 0.01442 |
| XP\_010970704.1 | AHSP | 10757.44 | 0.141 | 1 | 1 | 0.8 | 0.174 | 9 | 0.007832 |
| XP\_010970421.1 | GTPBP3 | 52882.34 | 0.028 | 1 | 1 | 0.83 | 0.139 | 9 | 0.01039 |
| XP\_010961153.1 | ARID4B | 147776.9 | 0.013 | 1 | 1 | 0.67 | 0.157 | 9 | 0.000873 |
| XP\_010944770.1 | ART4 | 36899.12 | 0.034 | 1 | 2 | 0.81 | 0.159 | 9 | 0.01023 |
| XP\_010953081.1 | TINF2 | 47835.49 | 0.014 | 1 | 1 | 0.77 | 0.185 | 9 | 0.008913 |
| XP\_010966482.1 | CTU2 | 56021.09 | 0.022 | 1 | 1 | 0.66 | 0.136 | 9 | 0.000291 |
| XP\_010955400.1 | MEN1 | 66197.6 | 0.02 | 1 | 1 | 0.81 | 0.198 | 9 | 0.01713 |
| XP\_010967476.1 | RNF123 | 150103.7 | 0.013 | 2 | 2 | 0.76 | 0.176 | 9 | 0.008168 |
| XP\_010972376.1 | MARK1 | 73861.14 | 0.014 | 1 | 2 | 0.64 | 0.187 | 9 | 0.001625 |
| XP\_010968641.1 | CCDC127 | 27522.46 | 0.03 | 1 | 1 | 0.73 | 0.261 | 9 | 0.01272 |