

## Supplementary materials

**Suppl. Table 1.** Up-regulated proteins in A549(+) cells with ethanol extract treatment

| Accession number | Unique peptides | Score  | Coverage (%) |
|------------------|-----------------|--------|--------------|
| Q9NRR5-1         | 6               | 57.17  | 23.63        |
| Q8WVX9           | 14              | 51.09  | 36.89        |
| P08754           | 8               | 79.17  | 39.83        |
| Q15717-2         | 19              | 130.00 | 57.22        |
| Q09028           | 4               | 62.23  | 32.24        |
| Q14126           | 18              | 103.86 | 32.02        |
| Q5T9A4           | 4               | 87.29  | 34.10        |
| P32754-1         | 14              | 122.37 | 48.60        |
| Q02127           | 11              | 56.84  | 42.78        |
| Q6NZI2-1         | 10              | 63.98  | 29.23        |

**Suppl. Table 2.** Down-regulated proteins in A549(+) cells with ethanol extract treatment

| Accession number | Unique peptides | Score  | Coverage (%) |
|------------------|-----------------|--------|--------------|
| Q9UNX3           | 1               | 56.05  | 53.79        |
| Q15020           | 19              | 86.90  | 26.48        |
| Q9UHD9           | 7               | 54.24  | 31.73        |
| O14980           | 31              | 186.54 | 39.78        |
| P68400           | 16              | 136.59 | 52.69        |
| Q9Y2S7           | 17              | 87.66  | 59.78        |
| P09622           | 18              | 109.19 | 41.45        |
| Q9H2U2-2         | 13              | 85.39  | 41.83        |
| O76070           | 10              | 75.79  | 63.78        |
| Q12769           | 17              | 62.02  | 15.60        |
| P36871-1         | 25              | 163.26 | 59.96        |
| P41091           | 14              | 82.37  | 36.02        |
| Q15233           | 23              | 134.27 | 59.87        |
| Q00796           | 11              | 54.62  | 48.74        |
| P25205-2         | 27              | 171.37 | 36.69        |
| P31946           | 8               | 116.52 | 54.07        |
| P04062           | 9               | 53.41  | 25.93        |
| O15371           | 14              | 81.28  | 34.67        |
| P25786-2         | 19              | 104.60 | 57.99        |
| Q14232           | 12              | 65.79  | 43.93        |
| Q8N3U4-2         | 13              | 75.54  | 18.77        |

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|----------|----|--------|-------|
| Q15084-2 | 20 | 133.73 | 46.54 |
| P22392-2 | 7  | 136.51 | 79.40 |
| P06733-1 | 15 | 468.20 | 81.57 |
| Q01780   | 19 | 87.28  | 29.38 |
| P05455   | 24 | 124.78 | 55.15 |
| P30876   | 28 | 143.57 | 29.90 |
| O94906-1 | 16 | 61.24  | 19.98 |
| P28066-1 | 9  | 74.36  | 46.06 |
| P23921   | 36 | 301.87 | 58.59 |
| P29401-2 | 36 | 320.01 | 63.39 |
| P28482   | 10 | 79.10  | 53.06 |
| P07339   | 17 | 71.86  | 48.30 |
| P26583   | 10 | 66.61  | 39.71 |
| Q14974   | 29 | 214.56 | 42.58 |
| Q15366-2 | 1  | 104.35 | 54.37 |
| Q53EL6-1 | 12 | 62.06  | 31.56 |
| P55036-1 | 4  | 78.50  | 36.87 |
| P61313-1 | 12 | 56.92  | 46.57 |
| P09493-2 | 2  | 75.72  | 39.04 |
| P31948-2 | 38 | 198.84 | 48.14 |
| P08238   | 25 | 398.26 | 55.80 |
| P22061-2 | 11 | 95.16  | 61.84 |
| P28062-1 | 10 | 61.66  | 35.87 |
| Q99575   | 10 | 53.28  | 13.28 |
| Q15424-3 | 7  | 69.74  | 17.88 |
| P54709   | 8  | 76.31  | 36.56 |
| O75396   | 11 | 54.46  | 39.53 |
| Q8TDD1-2 | 13 | 58.20  | 21.43 |
| Q2NL82   | 15 | 85.00  | 24.25 |
| P46063   | 16 | 76.29  | 34.21 |
| Q9UHB9   | 17 | 106.56 | 36.04 |
| P61163   | 5  | 57.72  | 38.30 |
| Q9BXW7   | 12 | 101.45 | 42.08 |
| Q96P70   | 19 | 102.43 | 26.42 |
| P52597   | 9  | 100.87 | 42.65 |
| P38159-1 | 8  | 92.78  | 47.06 |
| P22314   | 47 | 305.60 | 55.20 |
| P18621-3 | 11 | 69.98  | 47.37 |
| P06865   | 13 | 52.83  | 30.06 |
| O60841   | 15 | 88.02  | 20.49 |
| P49419-2 | 17 | 120.08 | 50.88 |
| P62937   | 14 | 89.25  | 83.03 |

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|----------|----|--------|-------|
| P11586   | 35 | 225.17 | 54.87 |
| P35609   | 1  | 100.37 | 19.13 |
| P07951-2 | 3  | 118.02 | 48.94 |
| Q15397   | 13 | 65.30  | 24.54 |
| Q9Y3F4-2 | 19 | 164.39 | 57.58 |
| Q9BW27   | 12 | 64.41  | 23.63 |
| Q13162   | 13 | 145.82 | 66.05 |
| O43396   | 12 | 78.61  | 60.21 |
| P54578   | 15 | 66.86  | 47.37 |
| Q9UNM6   | 16 | 84.77  | 52.39 |
| P84085   | 4  | 61.58  | 64.44 |
| Q9Y6Y8   | 12 | 59.23  | 17.10 |
| Q8NBJ7-1 | 10 | 69.56  | 33.22 |
| Q9BTW9-4 | 13 | 65.38  | 14.34 |
| Q9H9B4   | 13 | 82.70  | 51.55 |
| P31947-1 | 18 | 116.91 | 62.10 |
| Q15181   | 17 | 118.09 | 62.28 |
| Q9UQ80   | 20 | 141.40 | 53.05 |
| P20618   | 10 | 65.43  | 51.87 |
| Q5JSH3   | 20 | 77.17  | 28.15 |
| P61221   | 16 | 89.35  | 39.07 |
| Q16222-1 | 11 | 59.15  | 31.42 |
| P23526-1 | 14 | 98.27  | 35.65 |
| Q7L1Q6-3 | 11 | 63.99  | 30.16 |
| O75475-1 | 9  | 68.27  | 23.02 |
| P0DMM9   | 7  | 70.60  | 56.27 |
| P55884-2 | 22 | 140.80 | 34.59 |
| Q7Z739   | 6  | 58.60  | 29.06 |
| O00764-1 | 12 | 95.82  | 47.12 |
| Q08J23   | 25 | 144.76 | 49.28 |
| Q9HA77   | 11 | 59.69  | 25.35 |
| P18858   | 15 | 70.73  | 21.65 |
| P26196   | 13 | 76.29  | 40.17 |
| P49790-3 | 18 | 63.04  | 19.32 |
| Q8NBX0   | 12 | 71.73  | 43.12 |
| Q06830   | 17 | 173.65 | 67.84 |
| P07814   | 58 | 296.14 | 44.38 |
| P48444   | 19 | 103.16 | 37.96 |
| Q9BT78   | 16 | 90.63  | 52.71 |
| Q02880   | 10 | 64.28  | 11.56 |
| Q7Z6Z7   | 19 | 62.83  | 7.02  |
| Q8TEX9-2 | 17 | 97.51  | 23.82 |

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|----------|----|--------|-------|
| Q9UM54-6 | 13 | 58.47  | 11.52 |
| Q9UHG3   | 15 | 65.57  | 35.84 |
| P08865   | 20 | 150.32 | 60.00 |
| Q29RF7-1 | 17 | 97.59  | 16.90 |
| Q96TA1   | 16 | 122.47 | 38.07 |
| Q99497   | 20 | 99.75  | 69.31 |
| Q16181   | 12 | 85.97  | 35.47 |
| O00571   | 28 | 140.68 | 47.89 |
| P43304   | 26 | 163.06 | 47.46 |
| O95757   | 20 | 127.85 | 39.09 |
| P04406-2 | 1  | 423.69 | 95.90 |
| Q8WXX5   | 12 | 58.82  | 44.62 |
| Q15645   | 13 | 73.63  | 34.49 |
| P07237   | 36 | 244.06 | 68.31 |
| Q9UKS6   | 13 | 51.08  | 40.09 |
| O43747-1 | 15 | 59.61  | 23.24 |
| P28070   | 9  | 57.59  | 50.00 |
| O95347-1 | 43 | 221.76 | 43.61 |
| P23528   | 10 | 76.51  | 78.92 |
| P18669   | 16 | 206.49 | 63.78 |
| P60174   | 21 | 186.13 | 77.27 |
| Q6PL18-1 | 11 | 50.16  | 13.45 |
| O75153   | 24 | 93.08  | 25.21 |
| O14579-1 | 13 | 105.93 | 48.70 |
| O60306   | 24 | 140.25 | 22.69 |
| Q14684   | 12 | 60.32  | 25.33 |
| P00338-3 | 25 | 214.36 | 69.81 |
| P23284   | 23 | 113.44 | 69.91 |
| P62491-1 | 2  | 57.73  | 56.48 |
| Q14254   | 16 | 67.87  | 44.16 |
| P39748   | 13 | 80.92  | 44.21 |
| P11172   | 16 | 72.68  | 37.29 |
| Q15436   | 13 | 86.72  | 31.50 |
| Q5JTV8   | 1  | 65.40  | 27.62 |
| Q96AE4-2 | 2  | 129.80 | 45.48 |
| Q13310-3 | 16 | 154.78 | 45.30 |
| O95340-2 | 12 | 60.10  | 25.85 |
| Q13564-4 | 14 | 56.97  | 36.50 |
| Q9UBS4   | 11 | 90.98  | 32.96 |
| P47755   | 7  | 61.64  | 52.10 |
| Q9NYU2-1 | 35 | 199.44 | 37.94 |
| P32322-3 | 15 | 163.21 | 47.69 |

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| P04818   | 13 | 95.28  | 46.65 |
| Q00341-1 | 41 | 201.00 | 38.88 |
| Q15021   | 37 | 179.79 | 37.62 |
| Q16555-1 | 21 | 142.34 | 52.27 |
| O75150   | 18 | 82.82  | 24.08 |
| Q14527   | 14 | 51.64  | 17.54 |
| P63010-2 | 14 | 140.29 | 33.02 |
| Q9NTJ3-1 | 49 | 202.04 | 42.55 |
| Q9H4A4   | 24 | 136.37 | 44.46 |
| Q9HCC0-1 | 14 | 52.96  | 31.62 |
| P49588-2 | 37 | 246.51 | 44.56 |
| P38606   | 23 | 144.07 | 56.56 |
| P15531-2 | 1  | 80.10  | 60.45 |
| P39656   | 12 | 68.91  | 38.16 |
| Q9P258   | 18 | 94.07  | 49.43 |
| Q5JTH9-1 | 22 | 100.08 | 21.43 |
| P49411   | 31 | 248.65 | 71.02 |
| O95573   | 14 | 63.12  | 30.14 |
| Q13126-1 | 11 | 62.00  | 53.71 |
| P55786   | 32 | 168.06 | 42.98 |
| P16435   | 25 | 163.99 | 43.72 |
| Q99536   | 11 | 65.37  | 53.44 |
| P62753   | 17 | 117.68 | 48.59 |
| P20810-6 | 17 | 109.64 | 30.97 |
| Q9UHD8-1 | 13 | 64.16  | 29.52 |
| Q9NR45   | 8  | 63.87  | 23.12 |
| P40763   | 16 | 101.71 | 33.25 |
| Q02809-2 | 25 | 138.17 | 42.76 |
| P22102-1 | 26 | 158.16 | 35.35 |
| Q7L5N1   | 8  | 54.93  | 31.50 |
| B5ME19   | 22 | 114.05 | 24.51 |
| Q8TAT6-2 | 14 | 68.97  | 29.50 |
| Q8TC12   | 10 | 68.06  | 39.94 |
| P07686   | 17 | 93.66  | 30.76 |
| P17931   | 8  | 68.34  | 34.40 |
| P63241-2 | 13 | 95.96  | 46.74 |
| O60664-1 | 18 | 134.69 | 64.75 |
| P31153   | 18 | 95.96  | 46.58 |
| P32119   | 15 | 89.87  | 44.44 |
| Q9UKK9   | 10 | 62.89  | 43.84 |
| P41252   | 42 | 241.23 | 35.74 |
| O75116   | 32 | 163.49 | 27.88 |

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| Q5VYK3   | 26 | 109.69 | 18.48 |
| P07737   | 13 | 89.98  | 75.00 |
| Q6FI81-1 | 9  | 64.29  | 35.26 |
| P08240-1 | 11 | 63.07  | 23.35 |
| Q9Y4P3   | 11 | 62.87  | 33.56 |
| Q15014   | 8  | 61.41  | 45.14 |
| P05023   | 26 | 127.88 | 32.84 |
| P40925-3 | 16 | 91.44  | 39.20 |
| P30044-1 | 10 | 70.54  | 45.33 |
| Q6P2E9-1 | 14 | 72.29  | 15.63 |
| Q8WWM7-3 | 15 | 76.47  | 20.33 |
| Q92905   | 13 | 56.58  | 47.31 |
| P17858-1 | 16 | 104.02 | 34.74 |
| P30510   | 2  | 80.55  | 38.80 |
| P46379-3 | 20 | 98.91  | 30.38 |
| Q9UN86   | 9  | 57.80  | 23.24 |
| P06744   | 30 | 243.39 | 61.11 |
| P35251-1 | 14 | 51.16  | 16.29 |
| P67775   | 10 | 50.61  | 44.98 |
| Q9NXF1   | 12 | 52.38  | 18.41 |
| Q13045-1 | 18 | 87.38  | 18.83 |
| P33176   | 33 | 161.48 | 44.03 |
| P14618   | 40 | 401.07 | 71.56 |
| Q14CX7-1 | 13 | 54.84  | 16.67 |
| Q9NVI7-2 | 10 | 127.13 | 46.59 |
| P30086   | 8  | 60.11  | 45.45 |
| O76003   | 14 | 98.66  | 44.18 |
| A0FGR8-6 | 2  | 102.99 | 30.68 |
| Q14203-4 | 28 | 146.40 | 33.52 |
| O15067   | 23 | 148.18 | 28.92 |
| P23258   | 14 | 81.48  | 52.77 |
| Q9H0A0   | 24 | 105.57 | 30.05 |
| Q02818   | 18 | 92.05  | 42.52 |
| P16949-1 | 11 | 55.48  | 55.70 |
| P07384   | 14 | 58.51  | 21.15 |
| Q9POL0-2 | 10 | 103.46 | 37.41 |
| O75439   | 12 | 73.83  | 34.36 |
| Q6XQN6-1 | 16 | 80.67  | 38.66 |
| Q99733-2 | 9  | 72.37  | 27.98 |
| P52209   | 18 | 101.25 | 45.34 |
| P35573-1 | 16 | 85.84  | 14.62 |
| Q9Y613   | 14 | 55.12  | 17.87 |

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|----------|----|--------|-------|
| Q9UKV3-1 | 14 | 62.50  | 15.14 |
| P17812   | 12 | 64.08  | 34.01 |
| Q9HCE1   | 15 | 62.76  | 20.54 |
| P00966   | 19 | 121.69 | 57.52 |
| O60684   | 4  | 54.05  | 19.03 |
| Q9BSJ8-2 | 31 | 195.37 | 40.57 |
| O75821   | 10 | 51.99  | 36.88 |
| Q68E01   | 14 | 66.86  | 18.50 |
| O75534-4 | 21 | 83.29  | 30.57 |
| P51812   | 10 | 65.59  | 23.38 |
| P30519   | 13 | 80.73  | 54.11 |
| P00558   | 36 | 291.51 | 81.53 |
| P48637   | 14 | 60.04  | 40.93 |
| O00231-2 | 24 | 156.00 | 55.79 |
| Q9NQR4   | 16 | 76.38  | 60.87 |
| P53041   | 12 | 56.63  | 30.86 |
| Q13573   | 14 | 53.86  | 29.66 |
| O96019-1 | 10 | 52.52  | 34.97 |
| Q96QK1   | 20 | 125.78 | 32.54 |
| Q15019-2 | 12 | 100.99 | 46.97 |
| P55060-1 | 27 | 176.46 | 36.25 |
| O00429-6 | 1  | 71.22  | 39.12 |
| Q86VP6-1 | 32 | 206.56 | 33.41 |
| Q6PKG0-1 | 19 | 75.59  | 27.01 |
| Q9Y2X3   | 15 | 98.80  | 39.89 |
| Q13177   | 14 | 52.36  | 40.65 |
| Q8WUM0   | 26 | 125.06 | 33.56 |
| O75083   | 12 | 87.45  | 36.47 |
| Q9BY44-1 | 19 | 111.67 | 47.18 |
| Q15008-4 | 14 | 52.28  | 33.71 |
| Q7L014   | 27 | 107.99 | 32.69 |
| P52948-1 | 29 | 126.23 | 20.75 |
| P52888   | 12 | 57.50  | 22.50 |
| P58107   | 29 | 201.61 | 37.41 |
| Q27J81   | 27 | 120.22 | 30.34 |
| O43847-2 | 22 | 99.14  | 22.17 |
| Q14498-1 | 16 | 77.95  | 42.64 |
| P27105   | 19 | 100.18 | 67.36 |
| Q96I24-1 | 18 | 112.33 | 53.67 |
| O95433   | 14 | 90.64  | 44.67 |
| P24941-1 | 12 | 90.92  | 52.68 |
| Q99615-1 | 13 | 63.22  | 29.55 |

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|----------|----|--------|-------|
| Q00688   | 12 | 94.56  | 39.73 |
| Q8WUF5   | 19 | 100.20 | 36.47 |
| P25789   | 14 | 60.48  | 57.85 |
| P49792   | 22 | 87.17  | 10.70 |
| Q9H488-1 | 10 | 68.19  | 40.21 |
| Q5VTR2   | 18 | 86.69  | 27.18 |
| P52701   | 22 | 89.91  | 19.41 |
| P05198   | 22 | 109.19 | 53.33 |
| Q9BTV4   | 11 | 87.50  | 45.00 |
| Q16719   | 11 | 94.00  | 28.60 |
| Q13561-2 | 17 | 96.79  | 56.40 |
| Q9Y5L0-2 | 12 | 66.58  | 18.96 |
| P48449-1 | 16 | 72.81  | 25.55 |
| Q16576-1 | 7  | 107.66 | 46.59 |
| Q01813   | 23 | 113.84 | 37.63 |
| Q53GQ0   | 12 | 54.76  | 37.82 |
| Q13619-1 | 12 | 57.71  | 27.93 |
| P35659-1 | 12 | 57.30  | 30.40 |
| O75874   | 19 | 128.88 | 54.35 |
| P17980   | 21 | 119.38 | 51.48 |
| P09923   | 12 | 110.00 | 52.27 |
| P61289-2 | 11 | 66.52  | 49.44 |
| P62263   | 10 | 72.10  | 41.72 |
| P47712   | 13 | 56.16  | 25.63 |
| P09972   | 18 | 143.79 | 52.75 |
| P04075-2 | 31 | 298.55 | 71.53 |
| Q9UKY7   | 7  | 51.11  | 51.94 |
| P46937-9 | 10 | 73.01  | 30.91 |
| P53007   | 11 | 51.32  | 41.80 |
| Q9NY33   | 9  | 51.17  | 23.61 |
| Q9GZY8-1 | 10 | 54.13  | 51.17 |
| P06748   | 18 | 188.20 | 45.24 |
| Q9Y2L1-1 | 16 | 67.39  | 19.73 |
| Q9UBQ7   | 8  | 75.35  | 35.67 |
| P13667   | 38 | 195.37 | 48.22 |
| P49643-1 | 12 | 52.91  | 29.08 |
| Q9H4M9   | 23 | 133.49 | 55.24 |
| O94826   | 13 | 73.70  | 28.29 |
| P57740   | 17 | 67.73  | 24.22 |
| Q7Z478   | 14 | 82.94  | 16.65 |
| Q9BQG0-2 | 36 | 192.09 | 32.96 |
| P06756   | 15 | 57.46  | 19.75 |



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|----------|----|--------|-------|
| Q07065   | 32 | 238.34 | 67.61 |
| Q9NZB2-6 | 20 | 106.52 | 25.13 |
| P30740   | 15 | 80.31  | 42.22 |
| P17612   | 5  | 114.54 | 45.30 |
| P21399   | 21 | 117.93 | 35.32 |
| Q9NVI1-3 | 18 | 82.78  | 18.22 |
| E9PAV3   | 5  | 57.92  | 3.61  |
| Q14558-2 | 7  | 55.62  | 35.58 |
| Q96CT7   | 12 | 50.78  | 42.15 |
| Q96C36   | 10 | 69.71  | 37.50 |
| P53618   | 32 | 204.89 | 44.91 |
| O00154   | 11 | 55.11  | 34.47 |
| P50995   | 17 | 85.12  | 36.44 |
| Q13724-1 | 16 | 68.65  | 28.32 |
| Q9NUQ9   | 13 | 95.20  | 44.14 |
| P45974-1 | 21 | 112.07 | 35.20 |
| Q96FW1   | 8  | 55.59  | 36.16 |
| P46060   | 19 | 91.10  | 46.51 |
| Q96KP4   | 12 | 57.13  | 38.32 |
| P15924-1 | 23 | 65.50  | 10.76 |
| P84077   | 1  | 84.86  | 68.51 |
| Q14157-1 | 16 | 85.47  | 31.13 |
| Q9BVA1   | 2  | 270.75 | 62.47 |
| P01891   | 5  | 132.77 | 56.71 |
| P54577   | 32 | 146.51 | 56.44 |
| Q15738   | 16 | 96.24  | 53.89 |
| Q14247-1 | 21 | 94.74  | 38.00 |
| P30041   | 23 | 145.80 | 75.89 |
| Q13620   | 13 | 64.94  | 24.64 |
| P62258-1 | 22 | 144.77 | 74.12 |
| P49748-2 | 1  | 220.52 | 63.35 |
| Q9BPX3   | 17 | 65.09  | 20.10 |
| O94905-1 | 8  | 50.79  | 40.12 |
| P31350-2 | 11 | 66.45  | 33.41 |
| Q13155   | 9  | 58.83  | 36.88 |
| Q9GZR7   | 13 | 59.31  | 24.56 |
| O95163   | 20 | 100.99 | 21.62 |
| O60437   | 17 | 63.63  | 13.72 |
| Q96DI7   | 16 | 96.21  | 58.54 |
| Q14139-2 | 17 | 80.18  | 21.53 |
| P62140   | 5  | 86.91  | 50.46 |
| Q9UBU8-2 | 9  | 50.82  | 47.68 |

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| O00203-1 | 18 | 72.50  | 21.76 |
| Q14204   | 35 | 141.70 | 10.61 |
| O75694   | 22 | 138.52 | 22.14 |
| P08574   | 9  | 61.24  | 37.23 |
| Q9UMX0-1 | 7  | 73.35  | 30.90 |
| P62888   | 9  | 55.95  | 66.96 |
| P21964-1 | 14 | 72.79  | 67.53 |
| O14908-1 | 12 | 63.13  | 48.35 |
| O60231   | 18 | 77.40  | 24.30 |
| Q16851   | 19 | 107.07 | 43.70 |
| P46013   | 29 | 101.26 | 14.50 |
| P78527   | 30 | 96.39  | 8.62  |
| Q16539   | 12 | 55.58  | 46.39 |
| Q9Y446-2 | 19 | 88.55  | 36.70 |
| Q9P2E9-1 | 25 | 113.39 | 24.18 |
| P19623   | 11 | 53.78  | 37.75 |
| Q8NCW5   | 11 | 57.60  | 41.67 |
| O60502   | 10 | 50.51  | 20.09 |
| P46926   | 6  | 51.61  | 56.06 |
| Q9BRP8   | 9  | 65.67  | 54.41 |
| P82933   | 11 | 51.48  | 34.60 |
| Q86Y56   | 15 | 64.83  | 24.44 |
| Q9UH99-2 | 9  | 52.56  | 22.90 |
| P49257   | 13 | 74.87  | 34.90 |
| P52895   | 7  | 71.11  | 34.37 |
| P11413-2 | 24 | 112.30 | 47.59 |
| P25815   | 8  | 64.02  | 62.11 |
| P53396-1 | 49 | 318.40 | 50.59 |
| P47895   | 15 | 66.01  | 36.13 |
| O95155-4 | 13 | 60.02  | 16.93 |
| Q9BQ67   | 10 | 75.31  | 32.06 |
| P55795   | 8  | 98.93  | 42.32 |
| O15031   | 18 | 66.86  | 15.07 |
| Q8WXI9   | 7  | 51.47  | 24.11 |
| Q08379   | 10 | 53.60  | 15.07 |
| Q01105-2 | 1  | 84.06  | 43.68 |
| Q6P996-1 | 15 | 62.81  | 35.66 |
| Q9H3U1   | 12 | 50.09  | 16.21 |
| Q15366-5 | 1  | 108.93 | 63.88 |
| P18085   | 7  | 71.08  | 68.89 |
| P42330   | 10 | 81.29  | 56.35 |
| P63000-2 | 9  | 61.70  | 48.82 |

|          |    |        |       |
|----------|----|--------|-------|
| P14324   | 13 | 103.82 | 31.74 |
| P49327   | 51 | 299.02 | 31.66 |
| Q15293   | 12 | 79.50  | 48.04 |
| P00492   | 10 | 60.28  | 57.80 |
| Q14318-2 | 9  | 57.91  | 34.87 |
| Q96PU8   | 10 | 54.51  | 39.00 |
| Q9BWD1   | 17 | 148.97 | 51.64 |
| Q14240-2 | 3  | 69.17  | 34.56 |
| P02786   | 39 | 258.20 | 51.84 |
| P17174   | 17 | 104.24 | 55.21 |
| P30520   | 12 | 70.84  | 37.50 |
| O75436-1 | 13 | 64.49  | 51.38 |
| Q96E39   | 2  | 60.26  | 38.46 |
| O60763-2 | 14 | 54.42  | 19.42 |
| Q14151   | 4  | 52.49  | 14.48 |
| O75643-1 | 20 | 62.65  | 12.69 |
| O43399-3 | 1  | 62.77  | 62.68 |
| Q12768   | 13 | 54.70  | 14.32 |
| P14678-3 | 11 | 50.08  | 26.64 |
| Q13098-7 | 9  | 53.50  | 24.48 |
| P08237-3 | 13 | 94.63  | 26.32 |
| Q96HS1-1 | 13 | 56.91  | 43.25 |
| P56537-1 | 9  | 68.36  | 54.69 |
| O95782   | 15 | 78.32  | 31.42 |
| Q9NSV4-3 | 13 | 52.23  | 13.83 |
| P50416   | 13 | 54.12  | 23.67 |
| O60716-1 | 18 | 76.55  | 27.58 |
| Q5D862   | 12 | 86.99  | 11.08 |
| P34931   | 1  | 109.82 | 28.08 |
| Q6S8J3   | 2  | 119.31 | 11.26 |
| Q8IZL8   | 14 | 66.52  | 17.96 |

**Suppl. Table 3.** Up-regulated proteins in A549(++) cells with ether extract treatment

| <b>Accession number</b> | <b>Unique peptides</b> | <b>Score</b> | <b>Coverage (%)</b> |
|-------------------------|------------------------|--------------|---------------------|
| H0YL52                  | 1                      | 256.55       | 41.51               |
| P09601                  | 13                     | 164.33       | 39.93               |
| P02792                  | 5                      | 107.55       | 37.14               |
| Q15582                  | 11                     | 51.66        | 25.48               |
| P35658                  | 10                     | 63.89        | 8.95                |
| Q07973                  | 10                     | 85.36        | 31.91               |

|            |    |         |       |
|------------|----|---------|-------|
| O94925     | 18 | 215.48  | 44.69 |
| B8ZZA8     | 5  | 75.61   | 40.83 |
| Q6IQ22     | 2  | 53.27   | 17.21 |
| O60488     | 8  | 53.51   | 23.77 |
| P30520     | 9  | 114.25  | 23.68 |
| O75955     | 13 | 68.18   | 41.92 |
| Q5TCU3     | 8  | 349.34  | 54.58 |
| Q53FA7     | 9  | 74.80   | 33.73 |
| O60656     | 3  | 98.73   | 30.38 |
| Q53H82     | 9  | 54.81   | 34.03 |
| Q13232     | 7  | 54.61   | 40.24 |
| O00764     | 9  | 258.78  | 31.73 |
| Q08J23     | 12 | 93.86   | 26.73 |
| A0A087X271 | 6  | 84.86   | 45.25 |
| P62745     | 3  | 65.76   | 33.16 |
| A0A0G2JQ62 | 6  | 53.51   | 15.95 |
| O43491     | 13 | 62.56   | 25.17 |
| P16188     | 3  | 86.76   | 39.45 |
| Q15417     | 6  | 61.95   | 26.14 |
| P27105     | 10 | 114.07  | 40.28 |
| Q00796     | 8  | 68.00   | 35.57 |
| Q8IZL8     | 12 | 113.56  | 21.42 |
| Q8NE71     | 11 | 52.86   | 19.05 |
| P09110     | 1  | 83.62   | 38.68 |
| B4DJV2     | 6  | 218.59  | 42.38 |
| E7EX44     | 18 | 121.42  | 38.78 |
| C9JYY6     | 17 | 122.95  | 22.87 |
| Q9NR12     | 11 | 74.81   | 38.29 |
| Q8WWM7     | 11 | 70.53   | 15.53 |
| Q01650     | 3  | 99.98   | 9.47  |
| Q14151     | 5  | 79.33   | 15.74 |
| O14828     | 7  | 91.07   | 27.95 |
| Q04828     | 2  | 1029.37 | 85.14 |
| P04792     | 14 | 778.27  | 90.73 |
| Q13501     | 13 | 222.76  | 47.73 |
| P16435     | 26 | 284.77  | 50.66 |
| O75439     | 11 | 85.59   | 28.43 |
| Q6NUM9     | 11 | 92.42   | 25.74 |
| Q15942     | 8  | 89.95   | 23.60 |
| Q96PK6     | 14 | 235.00  | 29.45 |
| P51812     | 12 | 59.72   | 27.30 |
| Q29RF7     | 12 | 90.66   | 14.58 |

|            |     |         |       |
|------------|-----|---------|-------|
| A0A024RBT2 | 8   | 76.29   | 42.17 |
| E7ETZ4     | 7   | 100.02  | 31.86 |
| Q9NVS9     | 9   | 63.29   | 41.00 |
| P53396     | 51  | 969.39  | 51.41 |
| P50454     | 12  | 177.99  | 43.30 |
| Q9UNK0     | 6   | 51.85   | 31.78 |
| H0Y8R1     | 9   | 66.56   | 35.73 |
| P35580     | 14  | 181.70  | 18.62 |
| Q96PD2     | 7   | 62.43   | 16.90 |
| Q9H7Z7     | 7   | 86.46   | 28.65 |
| Q9UDY4     | 4   | 59.94   | 22.85 |
| A0A024R4E5 | 1   | 341.93  | 37.15 |
| O95361     | 14  | 113.30  | 29.43 |
| P51149     | 19  | 293.96  | 84.54 |
| P49736     | 19  | 168.66  | 30.20 |
| C9JYQ9     | 3   | 91.02   | 47.11 |
| O75828     | 6   | 209.08  | 46.93 |
| Q7Z6Z7     | 25  | 96.85   | 10.24 |
| Q9NTJ3     | 23  | 88.80   | 26.63 |
| P62995     | 7   | 87.73   | 31.25 |
| C9J2Y9     | 13  | 63.44   | 15.34 |
| F5GZS6     | 30  | 898.78  | 43.91 |
| O00267     | 10  | 67.62   | 13.16 |
| K7EIG1     | 2   | 150.90  | 36.69 |
| Q8WX93     | 10  | 82.36   | 11.42 |
| Q9Y5M8     | 9   | 78.69   | 42.07 |
| P04181     | 17  | 157.14  | 58.77 |
| Q8IVF2     | 60  | 311.30  | 27.40 |
| C9J7T7     | 16  | 54.74   | 12.42 |
| Q8NEZ5     | 10  | 52.15   | 33.00 |
| Q14126     | 11  | 60.79   | 16.55 |
| Q96BM9     | 1   | 66.46   | 44.62 |
| O95347     | 18  | 82.68   | 19.05 |
| Q01082     | 107 | 1028.31 | 59.05 |
| Q13813     | 3   | 1265.42 | 63.07 |
| Q15067     | 17  | 113.69  | 42.88 |
| Q15907     | 1   | 193.22  | 51.38 |
| P15428     | 13  | 126.47  | 53.38 |
| Q9UKX7     | 8   | 51.37   | 24.79 |
| Q9NVJ2     | 5   | 114.35  | 55.91 |
| P61289     | 11  | 156.68  | 48.03 |
| O75116     | 20  | 89.59   | 18.95 |

|            |    |         |       |
|------------|----|---------|-------|
| P78347     | 15 | 132.95  | 26.35 |
| Q99614     | 8  | 53.69   | 36.64 |
| P54920     | 12 | 74.00   | 49.83 |
| Q9UHD9     | 6  | 79.88   | 22.12 |
| Q9ULT8     | 15 | 54.98   | 10.23 |
| P11166     | 4  | 57.98   | 7.32  |
| P62495     | 10 | 82.00   | 32.72 |
| P78346     | 10 | 70.33   | 44.40 |
| Q9NZI8     | 17 | 247.37  | 39.17 |
| P46060     | 19 | 199.95  | 44.80 |
| F8W726     | 9  | 95.29   | 15.48 |
| B2WTI3     | 6  | 64.88   | 30.45 |
| O75694     | 9  | 52.97   | 9.99  |
| H3BN98     | 4  | 179.04  | 34.60 |
| P13797     | 30 | 375.19  | 60.16 |
| Q15785     | 7  | 54.01   | 34.95 |
| Q15181     | 15 | 158.40  | 64.36 |
| Q96E11     | 7  | 50.46   | 35.50 |
| Q10713     | 9  | 57.39   | 24.38 |
| Q13263     | 22 | 271.99  | 43.71 |
| Q96T76     | 11 | 61.45   | 17.28 |
| P51148     | 9  | 239.56  | 58.33 |
| Q16698     | 9  | 84.85   | 31.94 |
| A0A087WUN7 | 7  | 106.42  | 66.30 |
| A0A087WWU8 | 1  | 404.39  | 56.39 |
| Q6NZI2     | 12 | 130.91  | 31.28 |
| Q9BYT8     | 15 | 73.85   | 29.12 |
| Q14344     | 10 | 86.03   | 40.85 |
| Q05639     | 9  | 1331.76 | 60.91 |
| P26641     | 17 | 410.62  | 37.30 |
| P00352     | 43 | 4218.41 | 86.63 |
| P31947     | 10 | 235.53  | 56.45 |
| P26196     | 16 | 131.07  | 50.93 |
| P15121     | 17 | 712.13  | 79.43 |
| P30519     | 9  | 56.85   | 43.35 |
| P23921     | 15 | 144.31  | 29.17 |
| P35579     | 97 | 1549.80 | 57.81 |
| Q14694     | 9  | 80.57   | 19.05 |
| P33316     | 6  | 89.80   | 33.73 |
| P24534     | 6  | 122.69  | 60.44 |
| Q96A33     | 11 | 63.86   | 28.57 |
| Q9BQ67     | 14 | 72.38   | 54.93 |

|            |    |         |       |
|------------|----|---------|-------|
| H3BTN5     | 2  | 3856.23 | 66.80 |
| Q9NP72     | 11 | 100.66  | 66.02 |
| P84095     | 7  | 67.20   | 51.83 |
| O00116     | 24 | 220.91  | 45.14 |
| A0A0C4DGZ0 | 14 | 55.89   | 9.85  |
| P46087     | 17 | 124.17  | 25.00 |
| P42224     | 30 | 215.22  | 51.73 |
| Q9H6S3     | 15 | 109.91  | 32.45 |
| P28482     | 5  | 88.57   | 42.78 |
| C9J6B1     | 4  | 76.00   | 25.75 |
| Q09028     | 5  | 68.70   | 24.94 |
| P61163     | 6  | 160.12  | 37.50 |
| Q9H3N1     | 8  | 66.49   | 25.71 |
| P35241     | 16 | 269.03  | 37.39 |
| Q14669     | 25 | 103.93  | 19.03 |
| Q9UJS0     | 17 | 175.32  | 48.74 |
| Q14558     | 8  | 109.14  | 37.92 |
| Q6IAA8     | 9  | 94.86   | 75.16 |
| P10620     | 6  | 143.69  | 30.32 |
| A0A087WUT6 | 24 | 195.13  | 26.07 |
| A0A087WVZ9 | 6  | 57.61   | 46.74 |
| O75822     | 6  | 57.67   | 25.97 |
| P40261     | 6  | 87.86   | 28.79 |
| P61026     | 10 | 334.70  | 61.50 |
| Q01518     | 15 | 384.88  | 53.26 |
| Q10567     | 7  | 100.34  | 17.49 |
| P62826     | 13 | 583.71  | 45.37 |
| H3BRK3     | 1  | 710.82  | 38.29 |
| P30837     | 19 | 288.47  | 50.29 |
| Q8WUM4     | 37 | 430.22  | 56.57 |
| P52292     | 20 | 394.87  | 72.40 |
| A0A0B4J2A4 | 20 | 226.07  | 65.74 |
| O14908     | 9  | 59.59   | 30.33 |
| Q8TEM1     | 16 | 53.24   | 13.09 |
| Q13509     | 11 | 1448.00 | 79.56 |
| Q96DI7     | 13 | 90.60   | 53.78 |
| Q99615     | 13 | 74.84   | 28.74 |
| Q9Y3B7     | 10 | 79.29   | 52.08 |
| P68366     | 10 | 1939.13 | 68.08 |
| Q9H3P7     | 10 | 95.41   | 37.12 |
| P34932     | 28 | 291.18  | 42.14 |
| P51610     | 13 | 54.13   | 11.89 |

|        |    |         |       |
|--------|----|---------|-------|
| E7EQ69 | 9  | 72.31   | 56.55 |
| Q9Y376 | 7  | 52.47   | 21.70 |
| Q9Y394 | 8  | 77.96   | 38.94 |
| Q9Y2Z0 | 13 | 75.84   | 42.19 |
| P00167 | 4  | 93.90   | 35.82 |
| P50502 | 9  | 74.09   | 21.68 |
| P61006 | 2  | 161.58  | 35.27 |
| P50579 | 2  | 167.40  | 45.82 |
| P07437 | 6  | 2583.72 | 84.68 |
| O95782 | 17 | 103.16  | 33.37 |
| P27797 | 18 | 243.14  | 60.67 |
| P67809 | 6  | 350.18  | 51.54 |
| Q16543 | 8  | 62.65   | 28.84 |
| G5E9W7 | 12 | 107.16  | 42.01 |
| Q9UNF0 | 11 | 50.90   | 29.22 |
| Q9UN86 | 6  | 80.47   | 20.12 |
| Q8WUM0 | 10 | 79.55   | 11.85 |
| Q8WXF1 | 8  | 81.17   | 23.14 |
| P11172 | 9  | 61.42   | 24.38 |
| P78371 | 31 | 784.96  | 67.66 |
| Q9NXF1 | 7  | 57.39   | 12.06 |
| P62834 | 2  | 104.48  | 53.26 |
| Q15056 | 8  | 176.22  | 50.40 |
| Q7Z434 | 11 | 92.28   | 44.44 |
| Q9Y295 | 14 | 124.47  | 47.41 |
| P52895 | 4  | 638.83  | 78.02 |
| Q9Y3F4 | 20 | 207.57  | 63.43 |
| P62249 | 12 | 243.00  | 53.42 |
| H0YDU8 | 8  | 51.46   | 23.92 |
| P00491 | 10 | 184.03  | 49.48 |
| P60842 | 14 | 730.04  | 64.04 |
| P14735 | 12 | 51.87   | 16.39 |
| P22830 | 10 | 57.71   | 36.88 |
| O14744 | 11 | 80.12   | 19.00 |
| P07195 | 21 | 781.10  | 63.77 |
| Q8WU90 | 7  | 53.80   | 23.94 |
| H7C3P7 | 4  | 66.65   | 34.76 |
| P28838 | 12 | 67.05   | 31.21 |
| Q7L1Q6 | 13 | 174.30  | 42.00 |
| B9A018 | 12 | 88.33   | 29.29 |
| Q7KZ85 | 18 | 83.28   | 17.21 |
| P51659 | 22 | 256.73  | 41.03 |



|        |    |        |       |
|--------|----|--------|-------|
| P35221 | 16 | 108.31 | 30.57 |
| P40763 | 12 | 51.28  | 24.29 |
| Q13242 | 15 | 107.34 | 54.30 |
| P61224 | 3  | 148.85 | 53.26 |
| Q9BQA1 | 9  | 54.23  | 40.35 |
| Q12904 | 10 | 122.44 | 58.33 |
| P33992 | 13 | 73.96  | 22.89 |
| P62424 | 18 | 435.85 | 48.50 |
| P61221 | 18 | 164.21 | 46.58 |
| P67870 | 6  | 93.20  | 37.67 |
| O95793 | 13 | 55.49  | 32.76 |
| P78406 | 9  | 85.72  | 41.30 |
| Q14974 | 25 | 416.71 | 44.75 |
| Q8N5N7 | 7  | 58.71  | 57.59 |
| Q96A49 | 9  | 57.15  | 28.69 |
| Q6YN16 | 5  | 84.71  | 19.62 |
| P18206 | 50 | 559.43 | 50.71 |
| Q96AG4 | 15 | 354.22 | 42.67 |
| P07942 | 18 | 90.59  | 15.96 |
| P15531 | 1  | 568.11 | 72.37 |
| E5RJR5 | 8  | 83.72  | 37.42 |
| P82930 | 9  | 68.64  | 51.38 |
| Q7L2H7 | 15 | 133.32 | 48.66 |
| O60493 | 8  | 70.72  | 59.26 |
| Q9H0S4 | 9  | 51.00  | 25.27 |
| P38606 | 20 | 160.97 | 51.05 |
| P12429 | 16 | 97.04  | 46.75 |
| P23193 | 11 | 67.81  | 43.19 |
| F6T1Q0 | 10 | 51.17  | 35.59 |
| P19623 | 8  | 54.77  | 28.15 |
| Q71DI3 | 2  | 268.09 | 51.47 |
| E7EPN9 | 13 | 76.34  | 7.17  |
| Q15021 | 25 | 139.42 | 28.69 |
| Q5JRX3 | 14 | 72.42  | 23.24 |
| O75880 | 5  | 69.59  | 22.92 |
| P78318 | 10 | 52.24  | 43.66 |
| Q13200 | 25 | 336.33 | 41.96 |
| Q92598 | 23 | 245.58 | 39.04 |
| Q9UHB9 | 14 | 125.19 | 26.63 |
| Q15637 | 8  | 121.00 | 16.43 |
| F8VY35 | 9  | 274.08 | 45.45 |
| O00273 | 7  | 73.53  | 26.89 |

|        |    |         |       |
|--------|----|---------|-------|
| O14929 | 10 | 69.63   | 31.26 |
| P05387 | 12 | 566.95  | 82.61 |
| Q9Y512 | 10 | 81.64   | 28.57 |
| Q9UHD1 | 11 | 107.96  | 36.14 |
| P12955 | 13 | 131.68  | 39.55 |
| P68104 | 14 | 2674.21 | 69.91 |
| P05455 | 16 | 268.96  | 37.25 |
| P61247 | 18 | 359.66  | 59.09 |
| O95433 | 12 | 211.87  | 49.11 |
| F5GX77 | 5  | 63.46   | 51.89 |
| P06132 | 8  | 60.10   | 29.97 |
| P50991 | 28 | 459.74  | 64.75 |
| P23284 | 19 | 473.20  | 64.81 |
| Q9BRJ6 | 13 | 115.44  | 51.55 |
| Q9HB71 | 12 | 275.93  | 56.14 |
| P48163 | 21 | 211.31  | 52.97 |
| P10809 | 56 | 4803.72 | 78.88 |
| K7ES02 | 4  | 88.34   | 25.79 |
| P05388 | 17 | 614.39  | 59.31 |
| Q9BSJ8 | 24 | 189.87  | 33.61 |

**Suppl. Table 4.** Down-regulated proteins in A549(++) cells with ether extract treatment

| <b>Accession number</b> | <b>Unique peptides</b> | <b>Score</b> | <b>Coverage (%)</b> |
|-------------------------|------------------------|--------------|---------------------|
| E9PLL6                  | 6                      | 114.32       | 44.44               |
| Q96C19                  | 11                     | 117.86       | 38.33               |
| P50453                  | 11                     | 77.80        | 42.02               |
| P10253                  | 12                     | 90.89        | 20.48               |
| Q96BS2                  | 7                      | 67.42        | 36.92               |
| P0CG39                  | 2                      | 240.07       | 6.45                |
| P16144                  | 24                     | 115.47       | 21.08               |
| O43707                  | 47                     | 1724.78      | 72.12               |
| Q92597                  | 7                      | 60.69        | 31.47               |
| Q9H9P8                  | 8                      | 55.00        | 21.60               |
| O94808                  | 1                      | 54.50        | 12.17               |
| Q9H074                  | 8                      | 50.85        | 21.50               |
| P20338                  | 6                      | 83.04        | 50.46               |

**Suppl. Table 5.** Quantitation of western blotting data in Fig. 5A–B by Image-Pro Plus 6.0 Software

| <b>Treatment</b> | <b>Protein</b> | <b>WB Ratio [A549 (–) : A549(+)]</b>    | <b>SILAC Ratio [A549(–) : A549(+)]</b>    |
|------------------|----------------|-----------------------------------------|-------------------------------------------|
| Ethanol extract  | PKM2           | 1 : 0.21                                | 1 : 0.63                                  |
|                  | PRDX1          | 1 : 0.67                                | 1 : 0.59                                  |
|                  | Actin          | 1 : 1.03                                | 1 : 1                                     |
| <b>Treatment</b> | <b>Protein</b> | <b>WB Ratio [A549 (– –) : A549(++)]</b> | <b>SILAC Ratio [A549(– –) : A549(++)]</b> |
| Ether extract    | PIG3           | 1 : 1.57                                | 1 : 2.63                                  |
|                  | SQSTM          | 1 : 20.54                               | 1 : 1.95                                  |
|                  | Actin          | 1 : 1.02                                | 1 : 1                                     |