

A.

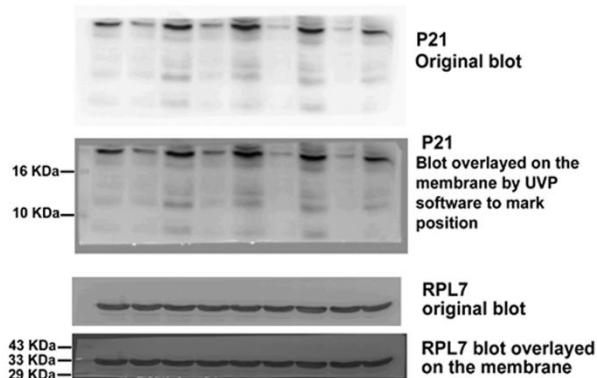
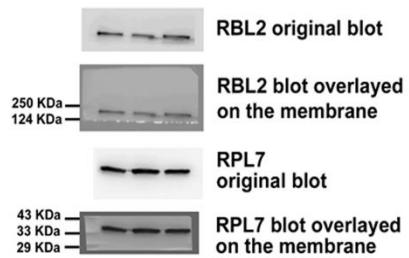
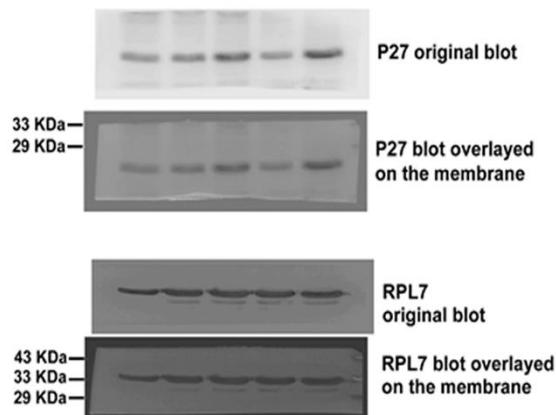
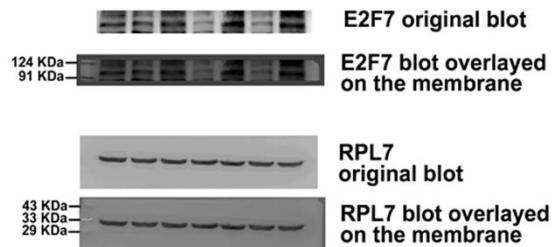
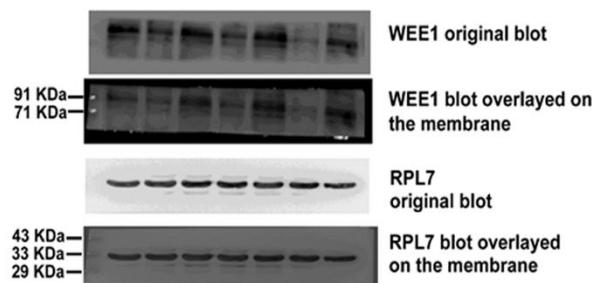
## Source data Figure 2

| Replicate 1        |       |         |       |         |       |       |                               |      | Replicate 3        |       |         |       |         |       |       |                               |      |
|--------------------|-------|---------|-------|---------|-------|-------|-------------------------------|------|--------------------|-------|---------|-------|---------|-------|-------|-------------------------------|------|
|                    | p21   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |                    | p21   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |
| Scrambled          | 22.27 | 22.31   | 14.4  | 14.49   | 7.82  | 0.00  | 1.00                          |      | Scrambled          | 25.1  | 25.07   | 15.5  | 15.56   | 9.51  | 0.00  | 1.00                          |      |
|                    | 22.43 |         | 14.44 |         |       |       |                               |      |                    | 25.04 |         | 15.6  |         |       |       |                               |      |
|                    | 22.24 |         | 14.64 |         |       |       |                               |      |                    | 25.07 |         | 15.57 |         |       |       |                               |      |
| miR-291b mimic     | 22.55 | 22.49   | 14.43 | 14.49   | 8.00  | 0.18  | 0.88                          |      | miR-291b mimic     | 25.12 | 25.50   | 15.78 | 15.71   | 9.78  | 0.27  | 0.83                          |      |
|                    | 22.55 |         | 14.46 |         |       |       |                               |      |                    | 25.78 |         | 15.67 |         |       |       |                               |      |
|                    | 22.38 |         | 14.58 |         |       |       |                               |      |                    | 25.59 |         | 15.69 |         |       |       |                               |      |
| miR-291b inhibitor | 21.53 | 21.43   | 14.2  | 14.35   | 7.08  | -0.74 | 1.67                          |      | miR-291b inhibitor | 24.2  | 24.41   | 15.93 | 15.79   | 8.61  | -0.90 | 1.87                          |      |
|                    | 21.41 |         | 14.49 |         |       |       |                               |      |                    | 24.65 |         | 15.67 |         |       |       |                               |      |
|                    | 21.34 |         | 14.35 |         |       |       |                               |      |                    | 24.37 |         | 15.78 |         |       |       |                               |      |
| miR-292a mimic     | 22.93 | 22.60   | 14.42 | 14.35   | 8.25  | 0.43  | 0.74                          |      | miR-292a mimic     | 25.47 | 25.40   | 15.77 | 15.70   | 9.69  | 0.18  | 0.88                          |      |
|                    | 22.76 |         | 14.31 |         |       |       |                               |      |                    | 25.35 |         | 15.71 |         |       |       |                               |      |
|                    | 22.12 |         | 14.32 |         |       |       |                               |      |                    | 25.37 |         | 15.63 |         |       |       |                               |      |
| miR-292a inhibitor | 22.08 | 22.07   | 14.94 | 14.68   | 7.39  | -0.43 | 1.34                          |      | miR-292a inhibitor | 24.83 | 24.48   | 15.92 | 15.93   | 8.55  | -0.96 | 1.95                          |      |
|                    | 22.03 |         | 14.76 |         |       |       |                               |      |                    | 23.82 |         | 15.99 |         |       |       |                               |      |
|                    | 22.1  |         | 14.33 |         |       |       |                               |      |                    | 24.79 |         | 15.87 |         |       |       |                               |      |
| miR-294 mimic      | 22.96 | 23.00   | 14.37 | 14.49   | 8.51  | 0.69  | 0.62                          |      | miR-294 mimic      | 26    | 26.11   | 15.68 | 15.61   | 10.50 | 0.99  | 0.50                          |      |
|                    | 23    |         | 14.59 |         |       |       |                               |      |                    | 25.99 |         | 15.53 |         |       |       |                               |      |
|                    | 23.03 |         | 14.51 |         |       |       |                               |      |                    | 26.33 |         | 15.61 |         |       |       |                               |      |
| miR-294 inhibitor  | 21.22 | 21.35   | 14.31 | 14.32   | 7.02  | -0.80 | 1.74                          |      | miR-294 inhibitor  | 24.17 | 24.23   | 15.44 | 15.60   | 8.63  | -0.89 | 1.85                          |      |
|                    | 21.37 |         | 14.38 |         |       |       |                               |      |                    | 24.16 |         | 15.79 |         |       |       |                               |      |
|                    | 21.45 |         | 14.28 |         |       |       |                               |      |                    | 24.35 |         | 15.57 |         |       |       |                               |      |
| miR-295 mimic      | 23.5  | 23.30   | 14.05 | 14.00   | 9.31  | 1.49  | 0.36                          |      | miR-295 mimic      | 25.88 | 26.04   | 15.84 | 15.84   | 10.20 | 0.68  | 0.62                          |      |
|                    | 23.45 |         | 13.87 |         |       |       |                               |      |                    | 26.05 |         | 15.87 |         |       |       |                               |      |
|                    | 22.96 |         | 14.07 |         |       |       |                               |      |                    | 26.19 |         | 15.82 |         |       |       |                               |      |
| miR-295 inhibitor  | 21.55 | 21.56   | 14.4  | 14.69   | 6.87  | -0.95 | 1.93                          |      | miR-295 inhibitor  | 24.09 | 24.06   | 15.78 | 15.89   | 8.17  | -1.35 | 2.54                          |      |
|                    | 21.62 |         | 14.71 |         |       |       |                               |      |                    | 24.22 |         | 15.98 |         |       |       |                               |      |
|                    | 21.5  |         | 14.95 |         |       |       |                               |      |                    | 23.87 |         | 15.92 |         |       |       |                               |      |
| Replicate 2        |       |         |       |         |       |       |                               |      | Replicate 1        |       |         |       |         |       |       |                               |      |
|                    | p21   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |                    | p27   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |
| Scrambled          | 25.49 | 25.50   | 15.28 | 15.29   | 10.21 | 0.00  | 1.00                          |      | Scrambled          | 25.85 | 25.85   | 12.35 | 12.34   | 13.51 | 0.00  | 1.00                          |      |
|                    | 25.44 |         | 15.37 |         |       |       |                               |      |                    | 25.78 |         | 12.27 |         |       |       |                               |      |
|                    | 25.57 |         | 15.22 |         |       |       |                               |      |                    | 25.93 |         | 12.41 |         |       |       |                               |      |
| miR-291b mimic     | 25.93 | 26.11   | 15.41 | 15.28   | 10.83 | 0.62  | 0.65                          |      | miR-294 mimic      | 26.17 | 26.24   | 12.68 | 12.47   | 13.78 | 0.27  | 0.83                          |      |
|                    | 26.13 |         | 15.22 |         |       |       |                               |      |                    | 26.25 |         | 12.41 |         |       |       |                               |      |
|                    | 26.27 |         | 15.2  |         |       |       |                               |      |                    | 26.31 |         | 12.31 |         |       |       |                               |      |
| miR-291b inhibitor | 24.93 | 24.90   | 15.21 | 15.29   | 9.61  | -0.60 | 1.51                          |      | miR-294 inhibitor  | 25.53 | 25.59   | 13.11 | 12.85   | 12.74 | -0.77 | 1.70                          |      |
|                    | 24.78 |         | 15.45 |         |       |       |                               |      |                    | 25.92 |         | 12.71 |         |       |       |                               |      |
|                    | 25    |         | 15.21 |         |       |       |                               |      |                    | 25.32 |         | 12.72 |         |       |       |                               |      |
| miR-292a mimic     | 25.86 | 25.82   | 14.98 | 14.93   | 10.89 | 0.68  | 0.63                          |      | miR-295 mimic      | 26.26 | 26.37   | 12.7  | 12.71   | 13.66 | 0.15  | 0.90                          |      |
|                    | 25.76 |         | 14.92 |         |       |       |                               |      |                    | 26.36 |         | 12.62 |         |       |       |                               |      |
|                    | 25.83 |         | 14.89 |         |       |       |                               |      |                    | 26.49 |         | 12.62 |         |       |       |                               |      |
| miR-292a inhibitor | 24.98 | 25.11   | 15.32 | 15.39   | 9.72  | -0.49 | 1.40                          |      | miR-295 inhibitor  | 24.76 | 25.03   | 12.23 | 12.27   | 12.77 | -0.74 | 1.67                          |      |
|                    | 25.65 |         | 15.43 |         |       |       |                               |      |                    | 24.95 |         | 12.03 |         |       |       |                               |      |
|                    | 24.7  |         | 15.42 |         |       |       |                               |      |                    | 25.39 |         | 12.54 |         |       |       |                               |      |
| miR-294 mimic      | 26.21 | 26.10   | 15.65 | 15.63   | 10.47 | 0.26  | 0.84                          |      | miR-294 inhibitor  | 26.52 | 26.59   | 15.3  | 15.24   | 11.35 | -0.62 | 1.53                          |      |
|                    | 25.93 |         | 15.62 |         |       |       |                               |      |                    | 26.59 |         | 15.21 |         |       |       |                               |      |
|                    | 26.15 |         | 15.61 |         |       |       |                               |      |                    | 26.67 |         | 15.22 |         |       |       |                               |      |
| miR-294 inhibitor  | 24.83 | 24.46   | 15.44 | 15.50   | 8.96  | -1.25 | 2.37                          |      | miR-295 mimic      | 28.12 | 28.30   | 15.58 | 15.55   | 12.75 | 0.78  | 0.58                          |      |
|                    | 24.92 |         | 15.47 |         |       |       |                               |      |                    | 28.53 |         | 15.61 |         |       |       |                               |      |
|                    | 23.64 |         | 15.59 |         |       |       |                               |      |                    | 28.24 |         | 15.46 |         |       |       |                               |      |
| miR-295 mimic      | 25.99 | 25.94   | 15.29 | 15.30   | 10.64 | 0.43  | 0.74                          |      | miR-295 inhibitor  | 26.99 | 27.16   | 15.77 | 15.70   | 11.46 | -0.51 | 1.42                          |      |
|                    | 25.72 |         | 15.34 |         |       |       |                               |      |                    | 27.36 |         | 15.53 |         |       |       |                               |      |
|                    | 26.1  |         | 15.27 |         |       |       |                               |      |                    | 27.12 |         | 15.79 |         |       |       |                               |      |
| miR-295 inhibitor  | 24.91 | 25.32   | 16.37 | 16.40   | 8.92  | -1.29 | 2.45                          |      | miR-294 mimic      | 27.96 | 27.89   | 15.32 | 15.19   | 12.71 | 0.72  | 0.61                          |      |
|                    | 25.46 |         | 16.36 |         |       |       |                               |      |                    | 27.83 |         | 15.01 |         |       |       |                               |      |
|                    | 25.58 |         | 16.46 |         |       |       |                               |      |                    | 27.89 |         | 15.23 |         |       |       |                               |      |
| Replicate 2        |       |         |       |         |       |       |                               |      | Replicate 3        |       |         |       |         |       |       |                               |      |
|                    | p27   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |                    | p27   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |
| Scrambled          | 27.42 | 27.38   | 15.38 | 15.41   | 11.57 | 0.00  | 1.00                          |      | Scrambled          | 26.97 | 14.98   | 14.98 | 14.98   | 11.99 | 0.00  | 1.00                          |      |
|                    | 27.34 |         | 15.42 |         |       |       |                               |      |                    | 26.88 |         | 14.91 |         |       |       |                               |      |
|                    | 27.38 |         | 15.44 |         |       |       |                               |      |                    | 26.92 |         | 15.04 |         |       |       |                               |      |
| miR-294 mimic      | 27.42 | 28.03   | 15.43 | 15.41   | 12.62 | 0.65  | 0.64                          |      | miR-294 inhibitor  | 26.52 | 26.59   | 15.3  | 15.24   | 11.35 | -0.62 | 1.53                          |      |
|                    | 28.33 |         | 15.47 |         |       |       |                               |      |                    | 26.59 |         | 15.21 |         |       |       |                               |      |
|                    | 28.33 |         | 15.32 |         |       |       |                               |      |                    | 26.67 |         | 15.22 |         |       |       |                               |      |
| miR-294 inhibitor  | 26.52 | 26.59   | 15.3  | 15.24   | 11.35 | -0.62 | 1.53                          |      | miR-295 mimic      | 28.12 | 28.30   | 15.58 | 15.55   | 12.75 | 0.78  | 0.58                          |      |
|                    | 26.59 |         | 15.21 |         |       |       |                               |      |                    | 28.53 |         | 15.61 |         |       |       |                               |      |
|                    | 26.67 |         | 15.22 |         |       |       |                               |      |                    | 28.24 |         | 15.46 |         |       |       |                               |      |
| miR-295 mimic      | 28.12 | 28.30   | 15.58 | 15.55   | 12.75 | 0.78  | 0.58                          |      | miR-295 inhibitor  | 26.99 | 27.16   | 15.77 | 15.70   | 11.46 | -0.51 | 1.42                          |      |
|                    | 28.53 |         | 15.61 |         |       |       |                               |      |                    | 27.36 |         | 15.53 |         |       |       |                               |      |
|                    | 28.24 |         | 15.46 |         |       |       |                               |      |                    | 27.12 |         | 15.79 |         |       |       |                               |      |
| miR-295 inhibitor  | 26.99 | 27.16   | 15.77 | 15.70   | 11.46 | -0.51 | 1.42                          |      | miR-294 mimic      | 27.96 | 27.89   | 15.32 | 15.19   | 12.71 | 0.72  | 0.61                          |      |
|                    | 27.36 |         | 15.53 |         |       |       |                               |      |                    | 27.83 |         | 15.01 |         |       |       |                               |      |
|                    | 27.12 |         | 15.79 |         |       |       |                               |      |                    | 27.89 |         | 15.23 |         |       |       |                               |      |
| Replicate 3        |       |         |       |         |       |       |                               |      | Replicate 1        |       |         |       |         |       |       |                               |      |
|                    | p27   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |                    | p27   | Ct mean | Rpl7  | Ct mean | ΔCt   | ΔΔCt  | RQ ( $2^{-\Delta\Delta Ct}$ ) | 1.00 |
| Scrambled          | 27.1  | 26.97   | 14.98 | 14.98   | 11.99 | 0.00  | 1.00                          |      | Scrambled          | 25.1  | 25.07   | 15.5  | 15.56   | 9.51  | 0.00  | 1.00                          |      |
|                    | 26.88 |         | 14.91 |         |       |       |                               |      |                    | 25.04 |         | 15.6  |         |       |       |                               |      |
|                    | 26.92 |         | 15.04 |         |       |       |                               |      |                    | 25.07 |         | 15.57 |         |       |       |                               |      |
| miR-294 mimic      | 27.96 | 27.89   | 15.32 | 15.19   | 12.71 | 0.72  | 0.61                          |      | miR-294 inhibitor  | 26.64 | 26.75   | 15.37 | 15.30   | 11.45 | -0.54 | 1.46                          |      |
|                    | 27.83 |         | 15.01 |         |       |       |                               |      |                    | 26.88 |         | 15.39 |         |       |       |                               |      |
|                    | 27.89 |         | 15.23 |         |       |       |                               |      |                    | 26.73 |         | 15.15 |         |       |       |                               |      |
| miR-294 inhibitor  | 26.64 | 26.75   | 15.37 | 15.30   | 11.45 | -0.54 | 1.46                          |      | miR-295 mimic      | 28.03 | 28.40   | 15.72 | 15.72   | 12.68 | 0.69  | 0.62                          |      |
|                    | 26.88 |         | 15.39 |         |       |       |                               |      |                    | 28.34 |         | 15.76 |         |       |       |                               |      |
|                    | 26.73 |         | 15.15 |         |       |       |                               |      |                    | 28.82 |         | 15.68 |         |       |       |                               |      |
| miR-295 mimic      | 28.03 | 28.40   | 15.72 | 15.72   | 12.68 | 0.69  | 0.62                          |      | miR-295 inhibitor  |       |         |       |         |       |       |                               |      |

## A. (Cont...)

## Source data Figure 2

| Replicate 1        |       |         |       |         |       |       |                          |       |         |       |
|--------------------|-------|---------|-------|---------|-------|-------|--------------------------|-------|---------|-------|
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 22.34 | 22.35   | 16.35 | 16.34   | 6.01  | 0.00  | 1.00                     | 27.44 | 27.61   | 15.97 |
| miR-291b mimic     | 22.29 |         | 15.76 |         | 16.26 |       |                          | 27.47 |         | 15.95 |
|                    | 22.38 |         | 15.82 |         | 16.42 |       |                          | 27.92 |         | 15.95 |
| miR-291b inhibitor | 22.59 | 22.69   | 15.76 | 15.83   | 0.89  | 0.89  | 0.54                     | 28.76 | 28.84   | 15.77 |
|                    | 22.68 |         | 15.77 |         | 16.39 |       |                          | 28.82 |         | 16.03 |
|                    | 22.8  |         | 15.82 |         | 16.41 |       |                          | 28.93 |         | 15.91 |
| miR-291b inhibitor | 20.5  | 20.47   | 16.28 | 16.40   | 4.07  | -1.93 | 3.82                     | 25.87 | 25.87   | 15.84 |
|                    | 20.05 |         | 16.39 |         | 16.52 |       |                          | 25.91 |         | 15.9  |
|                    | 20.41 |         | 16.52 |         | 16.52 |       |                          | 25.92 |         | 15.97 |
| miR-294 mimic      | 21.25 | 21.34   | 16.96 | 17.29   | 6.65  | 0.04  | 0.97                     |       |         |       |
|                    | 21.47 |         | 16.98 |         | 17.93 |       |                          |       |         |       |
| miR-294 inhibitor  | 21    | 21.00   | 16.46 | 16.37   | 4.63  | -1.38 | 2.80                     |       |         |       |
|                    | 21.05 |         | 16.27 |         | 16.39 |       |                          |       |         |       |
|                    | 20.90 |         | 16.39 |         | 16.39 |       |                          |       |         |       |
| miR-295 mimic      | 22.52 | 22.64   | 16.25 | 16.38   | 6.26  | 0.25  | 0.84                     |       |         |       |
|                    | 22.51 |         | 16.41 |         | 16.47 |       |                          |       |         |       |
| miR-295 inhibitor  | 20.89 | 20.88   | 16.2  | 16.32   | 4.56  | -1.45 | 2.73                     |       |         |       |
|                    | 20.83 |         | 16.27 |         | 16.92 |       |                          |       |         |       |
|                    | 20.92 |         | 16.5  |         | 16.5  |       |                          |       |         |       |
| Replicate 2        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 21.89 | 22.06   | 15.88 | 15.71   | 6.34  | 0.00  | 1.00                     | 25.49 | 25.50   | 16.23 |
| miR-291b mimic     | 22.21 |         | 15.72 |         | 15.72 |       |                          | 25.44 |         | 16.17 |
|                    | 22.27 |         | 15.54 |         | 15.54 |       |                          | 25.57 |         | 16.03 |
| miR-291b inhibitor | 22.75 | 22.19   | 15.43 | 15.56   | 6.63  | 0.29  | 0.82                     | 26.22 | 26.22   | 15.98 |
|                    | 22.59 |         | 15.69 |         | 15.6  |       |                          | 26.15 |         | 16.02 |
|                    | 22.24 |         | 15.56 |         | 15.56 |       |                          | 26.29 |         | 16.1  |
| miR-291b inhibitor | 20.18 | 20.39   | 15.87 | 15.84   | 4.56  | -1.79 | 3.45                     | 23.2  | 23.68   | 16.31 |
|                    | 20.77 |         | 15.83 |         | 15.81 |       |                          | 23.39 |         | 16.25 |
|                    | 20.29 |         | 15.81 |         | 15.81 |       |                          | 23.91 |         | 16.16 |
| miR-294 mimic      | 22.71 | 22.27   | 15.22 | 15.35   | 6.63  | 0.58  | 0.67                     |       |         |       |
|                    | 22.3  |         | 15.31 |         | 15.51 |       |                          |       |         |       |
| miR-294 inhibitor  | 20.72 | 20.78   | 15.77 | 15.70   | 5.69  | -1.26 | 2.39                     |       |         |       |
|                    | 20.22 |         | 15.63 |         | 15.69 |       |                          |       |         |       |
|                    | 21.41 |         | 15.69 |         | 15.69 |       |                          |       |         |       |
| miR-295 mimic      | 21.94 | 21.91   | 15.48 | 15.49   | 6.42  | 0.08  | 0.95                     |       |         |       |
|                    | 21.93 |         | 15.52 |         | 15.46 |       |                          |       |         |       |
| miR-295 inhibitor  | 20.43 | 20.83   | 15.86 | 15.82   | 4.81  | -1.53 | 2.89                     |       |         |       |
|                    | 20.63 |         | 15.79 |         | 15.82 |       |                          |       |         |       |
|                    | 20.84 |         | 15.82 |         | 15.82 |       |                          |       |         |       |
| Replicate 3        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 27.71 | 26.97   | 15.31 | 15.27   | 11.70 | 0.00  | 1.00                     | 25.51 | 25.50   | 15.76 |
| miR-291b mimic     | 27    | 27.08   | 15.21 | 15.27   | 11.81 | 0.11  | 0.92                     | 25.42 |         | 15.36 |
|                    | 27.04 |         | 15.28 |         | 15.32 |       |                          | 25.57 |         | 15.77 |
| miR-291b inhibitor | 25.13 | 25.22   | 15.67 | 15.63   | 9.59  | -2.11 | 4.32                     | 27.46 | 27.55   | 15.79 |
|                    | 25.22 |         | 15.62 |         | 15.59 |       |                          | 27.45 |         | 15.69 |
|                    | 25.3  |         | 15.59 |         | 15.59 |       |                          | 27.75 |         | 15.61 |
| miR-294 mimic      | 27.23 | 27.61   | 15.73 | 15.74   | 11.87 | 0.17  | 0.89                     |       |         |       |
|                    | 27.32 |         | 15.71 |         | 15.78 |       |                          |       |         |       |
| miR-294 inhibitor  | 25.27 | 25.41   | 15.55 | 15.40   | 10.63 | -1.69 | 3.72                     |       |         |       |
|                    | 25.26 |         | 15.58 |         | 15.21 |       |                          |       |         |       |
|                    | 25.21 |         | 15.57 |         | 15.57 |       |                          |       |         |       |
| miR-295 mimic      | 26.9  | 27.22   | 15.31 | 15.38   | 11.84 | 0.14  | 0.91                     |       |         |       |
|                    | 26.92 |         | 15.47 |         | 15.36 |       |                          |       |         |       |
| miR-295 inhibitor  | 25.79 | 25.64   | 15.22 | 15.23   | 10.41 | -1.29 | 2.44                     |       |         |       |
|                    | 25.34 |         | 15.49 |         | 15.28 |       |                          |       |         |       |
|                    | 25.83 |         | 15.38 |         | 15.28 |       |                          |       |         |       |
| Replicate 4        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 26.71 | 26.89   | 15.31 | 15.39   | 10.70 | 0.00  | 1.00                     | 25.39 | 25.37   | 15.76 |
| miR-291b mimic     | 27    | 27.08   | 15.21 | 15.27   | 11.81 | 0.11  | 0.92                     | 25.45 |         | 15.56 |
|                    | 27.04 |         | 15.28 |         | 15.32 |       |                          | 25.89 |         | 15.51 |
| miR-291b inhibitor | 25.13 | 25.22   | 15.67 | 15.63   | 9.59  | -2.11 | 4.32                     | 27.92 |         | 15.95 |
|                    | 25.22 |         | 15.62 |         | 15.59 |       |                          | 27.91 |         | 15.91 |
| miR-294 mimic      | 27.23 | 27.61   | 15.73 | 15.74   | 11.87 | 0.17  | 0.89                     |       |         |       |
|                    | 27.32 |         | 15.71 |         | 15.78 |       |                          |       |         |       |
| miR-294 inhibitor  | 25.27 | 25.41   | 15.55 | 15.40   | 10.63 | -1.69 | 3.72                     |       |         |       |
|                    | 25.26 |         | 15.58 |         | 15.21 |       |                          |       |         |       |
|                    | 25.21 |         | 15.57 |         | 15.57 |       |                          |       |         |       |
| miR-295 mimic      | 26.9  | 27.22   | 15.31 | 15.38   | 11.84 | 0.14  | 0.91                     |       |         |       |
|                    | 26.92 |         | 15.47 |         | 15.36 |       |                          |       |         |       |
| miR-295 inhibitor  | 25.79 | 25.64   | 15.22 | 15.23   | 10.41 | -1.29 | 2.44                     |       |         |       |
|                    | 25.34 |         | 15.49 |         | 15.28 |       |                          |       |         |       |
|                    | 25.83 |         | 15.38 |         | 15.28 |       |                          |       |         |       |
| Replicate 5        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 26.71 | 26.89   | 15.31 | 15.27   | 11.70 | 0.00  | 1.00                     | 27.1  | 26.97   | 14.95 |
| miR-291b mimic     | 27    | 27.08   | 15.21 | 15.27   | 11.81 | 0.11  | 0.92                     | 26.88 |         | 14.93 |
|                    | 27.04 |         | 15.28 |         | 15.32 |       |                          | 26.92 |         | 15.91 |
| miR-291b inhibitor | 25.13 | 25.22   | 15.67 | 15.63   | 9.59  | -2.11 | 4.32                     | 28.15 | 27.97   | 15.41 |
|                    | 25.22 |         | 15.62 |         | 15.59 |       |                          | 28.52 |         | 15.52 |
|                    | 25.3  |         | 15.59 |         | 15.59 |       |                          | 25.31 |         | 15.01 |
| miR-294 mimic      | 27.23 | 27.61   | 15.73 | 15.74   | 11.87 | 0.17  | 0.89                     |       |         |       |
|                    | 27.32 |         | 15.71 |         | 15.78 |       |                          |       |         |       |
| miR-294 inhibitor  | 25.27 | 25.41   | 15.55 | 15.40   | 10.63 | -1.69 | 3.72                     |       |         |       |
|                    | 25.26 |         | 15.58 |         | 15.21 |       |                          |       |         |       |
|                    | 25.21 |         | 15.57 |         | 15.57 |       |                          |       |         |       |
| miR-295 mimic      | 26.9  | 27.22   | 15.31 | 15.38   | 11.84 | 0.14  | 0.91                     |       |         |       |
|                    | 26.92 |         | 15.47 |         | 15.36 |       |                          |       |         |       |
| miR-295 inhibitor  | 25.79 | 25.64   | 15.22 | 15.23   | 10.41 | -1.29 | 2.44                     |       |         |       |
|                    | 25.34 |         | 15.49 |         | 15.28 |       |                          |       |         |       |
|                    | 25.83 |         | 15.38 |         | 15.28 |       |                          |       |         |       |
| Replicate 6        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 27.71 | 26.97   | 15.31 | 15.27   | 11.70 | 0.00  | 1.00                     | 27.1  | 26.97   | 14.90 |
| miR-291b mimic     | 27    | 27.08   | 15.21 | 15.27   | 11.81 | 0.11  | 0.92                     | 26.88 |         | 14.93 |
|                    | 27.04 |         | 15.28 |         | 15.32 |       |                          | 27.81 |         | 15.64 |
| miR-291b inhibitor | 24.73 | 24.85   | 14.96 | 14.96   | 9.89  | -2.18 | 4.53                     | 28.15 | 27.97   | 15.41 |
|                    | 24.52 |         | 15.01 |         | 15.37 |       |                          | 28.75 |         | 15.37 |
|                    | 25.31 |         | 14.92 |         | 15.26 |       |                          | 27.81 |         | 15.64 |
| miR-294 mimic      | 27.23 | 27.61   | 15.73 | 15.74   | 11.87 | 0.17  | 0.89                     |       |         |       |
|                    | 27.32 |         | 15.71 |         | 15.78 |       |                          |       |         |       |
| miR-294 inhibitor  | 24.69 | 24.92   | 15.21 | 15.27   | 9.64  | -2.43 | 5.38                     |       |         |       |
|                    | 24.73 |         | 15.37 |         | 15.26 |       |                          |       |         |       |
|                    | 25.35 |         | 15.26 |         | 15.37 |       |                          |       |         |       |
| miR-295 mimic      | 29.76 | 29.31   | 15.63 | 15.31   | 14.00 | 1.93  | 0.26                     |       |         |       |
|                    | 29.49 |         | 14.92 |         | 15.37 |       |                          |       |         |       |
| miR-295 inhibitor  | 28.88 | 28.68   | 15.37 | 15.37   | 12.17 | 0.10  | 0.93                     |       |         |       |
|                    | 28.68 |         | 15.37 |         | 15.37 |       |                          |       |         |       |
|                    | 28.88 |         | 15.37 |         | 15.37 |       |                          |       |         |       |
| Replicate 7        |       |         |       |         |       |       |                          |       |         |       |
|                    | Whee1 | Ct mean | Rp17  | Ct mean | ΔCt   | ΔΔCt  | RQ (2 <sup>-ΔΔCt</sup> ) | Eoff  | Ct mean | Rp17  |
| Scrambled          | 27.71 | 26.97   | 15.31 | 15.27   | 11.70 | 0.00  | 1.00                     | 28.87 | 25.35   | 15.58 |
| miR-291b mimic     | 27    | 27.08   | 15.21 | 15.27   | 11.81 | 0.11  | 0.92                     | 24.93 |         | 15.49 |
|                    | 27.04 |         | 15.28 |         | 15.32 |       |                          | 24.93 |         | 15.38 |
| miR-291b inhibitor | 25.34 | 25.83   | 15.49 | 15.28   | 10.41 | -1.27 | 4.50                     | 25.38 |         | 15.57 |
|                    | 25.34 |         | 15.49 |         | 15.28 |       |                          | 25.38 |         | 15.57 |
|                    | 25.83 |         | 15.38 |         | 15.28 |       |                          |       |         |       |

**Source data Figure 2****B.****For Figure 2B, P21 and RPL7****For Figure 2B, RBL2 and RPL7****For Figure 2B, P27 and RPL7****For Figure 2B, E2F7 and RPL7****For Figure 2B, WEE1 and RPL7**

Source data Figure 2

