**Supplementary File 3 – Quantification of microscopy data**

**Average fraction of >1000 cells showing stronger nuclear fluorescence than cytoplasmic (fn) from three independent experiments.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Figure** | **Sample** | | **Average fn** |  | **Figure** | **Sample** | | **Average fn** |
| Fig.1D | pGAL-NOG1-GFP | | 0.92 |  | Fig.5B | Arx1-GFP | vector / DMSO | 0.98 |
|  | pGAL-NOG1DN-GFP | | 0.07 |  |  | Arx1-GFP | pGAL-NOG1DN/DMSO | 0.89 |
| Fig.4B | Rlp24-TAP | pGAL-NOG1 | 0.92 |  |  | Arx1-GFP | vector / DIA | 0.01 |
|  | Rlp24-TAP | pGAL-NOG1DN | 0.95 |  |  | Arx1-GFP | pGAL-NOG1DN/DIA | 0.01 |
| Fig.4C | Bud20-GFP | pGAL-NOG1 | 1.00 |  |  | Tif6-GFP | vector / DMSO | 0.99 |
|  | Bud20-GFP | pGAL-NOG1DN | 1.00 |  |  | Tif6-GFP | pGAL-NOG1DN/DMSO | 0.08 |
|  | Nug1-GFP | pGAL-NOG1 | 1.00 |  |  | Tif6-GFP | vector / DIA | 0.12 |
|  | Nug1-GFP | pGAL-NOG1DN | 1.00 |  |  | Tif6-GFP | pGAL-NOG1DN/DIA | 0.02 |
|  | Mrt4-GFP | pGAL-NOG1 | 1.00 |  | Fig. 5D | Arx1-GFP rei1Δ | pGAL-NOG1/REI1 | 0.88 |
|  | Mrt4-GFP | pGAL-NOG1DN | 0.08 |  |  | Arx1-GFP rei1Δ | pGAL-NOG1/REI1-TAP | 0.19 |
|  | Arx1-GFP | pGAL-NOG1 | 1.00 |  |  | Arx1-GFP rei1Δ | pGAL-NOG1DN/REI1 | 0.87 |
|  | Arx1-GFP | pGAL-NOG1DN | 0.93 |  |  | Arx1-GFP rei1Δ | pGAL-NOG1DN/REI1-TAP | 0.13 |
|  | Nmd33A-GFP | pGAL-NOG1 | 0.88 |  | Fig.6C | Mrt4-GFP | pGAL-NOG1 | 1.00 |
|  | Nmd33A-GFP | pGAL-NOG1DN | 0.04 |  |  | Mrt4-GFP | pGAL-NOG1DN | 0.06 |
|  | Tif6-GFP | pGAL-NOG1 | 0.97 |  |  | Mrt4-GFP | pGAL-NOG1Δ427-536 | 0.99 |
|  | Tif6-GFP | pGAL-NOG1DN | 0.06 |  |  | Mrt4-GFP | pGAL-RLP24 | 0.87 |
| Fig.5B | Rlp24-TAP | vector / DMSO | 0.84 |  |  | Mrt4-GFP | pGAL-RLP241-146 | 0.16 |
|  | Rlp24-TAP | pGAL-NOG1DN/DMSO | 0.92 |  |  | Mrt4-GFP | pGAL-RLP24Δ91-105 | 0.99 |
|  | Rlp24-TAP | vector / DIA | 0.10 |  |  | Arx1-GFP | pGAL-NOG1 | 1.00 |
|  | Rlp24-TAP | pGAL-NOG1DN/DIA | 0.06 |  |  | Arx1-GFP | pGAL-NOG1DN | 0.94 |
|  | Bud20-GFP | vector / DMSO | 1.00 |  |  | Arx1-GFP | pGAL-NOG1Δ427-536 | 0.99 |
|  | Bud20-GFP | pGAL-NOG1DN/DMSO | 1.00 |  |  | Arx1-GFP | pGAL-RLP24 | 0.97 |
|  | Bud20-GFP | vector / DIA | 0.00 |  |  | Arx1-GFP | pGAL-RLP241-146 | 0.08 |
|  | Bud20-GFP | pGAL-NOG1DN/DIA | 0.00 |  |  | Arx1-GFP | pGAL-RLP24Δ91-105 | 0.99 |
|  | Nug1-GFP | vector / DMSO | 0.99 |  |  | Tif6-GFP | pGAL-NOG1 | 0.97 |
|  | Nug1-GFP | pGAL-NOG1DN/DMSO | 1.00 |  |  | Tif6-GFP | pGAL-NOG1DN | 0.06 |
|  | Nug1-GFP | vector / DIA | 0.04 |  |  | Tif6-GFP | pGAL-NOG1Δ427-536 | 0.98 |
|  | Nug1-GFP | pGAL-NOG1DN/DIA | 0.05 |  |  | Tif6-GFP | pGAL-RLP24 | 0.88 |
|  | Mrt4-GFP | vector / DMSO | 1.00 |  |  | Tif6-GFP | pGAL-RLP241-146 | 0.07 |
|  | Mrt4-GFP | pGAL-NOG1DN/DMSO | 0.12 |  |  | Tif6-GFP | pGAL-RLP24Δ91-105 | 1.00 |
|  | Mrt4-GFP | vector / DIA | 0.02 |  |  |  |  |  |
|  | Mrt4-GFP | pGAL-NOG1DN/DIA | 0.03 |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Figure** | **Sample** | | **Average fn** |
| Fig.6D | Mrt4-GFP nog1Δ | NOG1/DMSO | 0.96 |
|  | Mrt4-GFP nog1Δ | NOG1Δ1-479/DMSO | 0.96 |
|  | Mrt4-GFP nog1Δ | NOG1/DIA | 0.15 |
|  | Mrt4-GFP nog1Δ | NOG1Δ1-479/DIA | 0.09 |
|  | Arx1-GFP nog1Δ | NOG1/DMSO | 0.84 |
|  | Arx1-GFP nog1Δ | NOG1Δ1-479/DMSO | 0.62 |
|  | Arx1-GFP nog1Δ | NOG1/DIA | 0.30 |
|  | Arx1-GFP nog1Δ | NOG1Δ1-479/DIA | 0.32 |
|  | Tif6-GFP nog1Δ | NOG1/DMSO | 0.90 |
|  | Tif6-GFP nog1Δ | NOG11-479/DMSO | 0.98 |
|  | Tif6-GFP nog1Δ | NOG1/DIA | 0.09 |
|  | Tif6-GFP nog1Δ | NOG11-479/DIA | 0.23 |
| Fig.7A | Mrt4-GFP | YVH1 | 1.00 |
|  | Mrt4-GFP | vector | 0.05 |
|  | Mrt4-GFP | pGAL-NOG1DN | 0.08 |
|  | Mrt4G68E-GFP | YVH1 | 0.99 |
|  | Mrt4G68E-GFP | vector | 1.00 |
|  | Mrt4G68E-GFP | pGAL-NOG1DN | 1.00 |
|  | Tif6-GFP | MRT4/YVH1 | 1.00 |
|  | Tif6-GFP | MRT4/vector | 0.10 |
|  | Tif6-GFP | MRT4/pGAL-NOG1DN | 0.07 |
|  | Tif6-GFP | MRT4G68E/YVH1 | 0.98 |
|  | Tif6-GFP | MRT4G68E/vector | 0.90 |
|  | Tif6-GFP | MRT4G68E/pGAL-NOG1DN | 0.09 |