**Table S2. Correspondence between genes that affect cell division when over-expressed, with genes required for normal cell cycle progression.**

|  |  |  |
| --- | --- | --- |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YLR052W | G1 |  |  |
| YOR131C | G1 |  |  |
| YHL001W | G1 | ‡NA |  |
| YER028C | G1 |  |  |
| YHR174W | G1 | NA |  |
| YDR117C | G1 |  |  |
| YGR112W | G1 | G1 |  |
| YDR156W | G1 |  |  |
| YCR046C | G1 | †ND |  |
| YDR493W | G1 |  |  |
| YOR065W | G1 |  |  |
| YPR152C | G1 |  |  |
| YDR397C | G1 | NA | essential |
| YIR013C | G1 |  |  |
| YHL031C | G1 | ND |  |
| YPL127C | G1 |  |  |
| YHR070W | G1 | NA | essential |
| YNL167C | G1 | NA |  |
| YMR275C | G1 |  |  |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YGL105W | G1 |  |  |
| YLL066W-B | G1 | NA |  |
| YKL052C | G2 | NA | essential |
| YBR131C-A | G2 | NA | Dubious, overlaps YBR131W |
| YOR257W | G2 | NA | essential |
| YCR093W | G2 | NA | essential |
| YGR206W | G2 |  |  |
| YML055W | G2 |  |  |
| YHR172W | G2 | NA | essential |
| YIL138C | G2 |  |  |
| YBL050W | G2 | NA | essential |
| YOR326W | G2 | NA | essential |
| YNL264C | G2 |  |  |
| YDR277C | G2 |  |  |
| YLR123C | G2 |  |  |
| YML052W | G2 |  |  |
| YHR014W | G2 |  |  |
| YHR002W | G2 | NA |  |
| YLR394W | G2 |  |  |
| YJR060W | G2 | ND |  |
| YCL026C-A | G2 |  |  |
| YPR015C | G2 |  |  |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YOR286W | G2 | ND |  |
| YGR091W | G2 | NA | essential |
| YDL002C | G2 |  |  |
| YJL077W-A | G2 | NA | Dubious, overlaps YJL077C |
| YML007W | G2 |  |  |
| YER145C | G2 |  |  |
| YLR149C | G2 | ND |  |
| YJL012C | G2 |  |  |
| YLR341W | G2 |  |  |
| YNL188W | G2 | NA | essential |
| YOR195W | G2 |  |  |
| YGR109C | G2 |  |  |
| YBR211C | G2 | NA | essential |
| YDR245W | G2 |  |  |
| YDR033W | G2 |  |  |
| YJL030W | G2 |  |  |
| YDR091C | G2 | NA | essential |
| YIR001C | G2 |  |  |
| YKL078W | G2 | NA | essential |
| YPR190C | G2 | NA | essential |
| YDR266C | G2 |  |  |
| YDL214C | G2 |  |  |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YDR001C | G2 |  |  |
| YIR016W | G2 |  |  |
| YBR083W | G2 |  |  |
| YKR067W | G2 |  |  |
| YHR131C | G2 |  |  |
| YFL022C | G2 | NA | essential |
| YDR143C | G2 |  |  |
| YPL174C | G2 | G1 | *NIP100* |
| YOR002W | G2 |  |  |
| YNL283C | G2 |  |  |
| YPL247C | G2 |  |  |
| YJL031C | G2 | NA | essential |
| YPR119W | G2 | G2 | *CLB2* |
| YML053C | G2 |  |  |
| YJL106W | G2 |  |  |
| YMR199W | G2 |  |  |
| YML016C | G2 |  |  |
| YLR189C | G2 |  |  |
| YER007W | G2 |  |  |
| YEL022W | G2 | NA |  |
| YDL192W | G2 |  |  |
| YDR335W | G2 |  |  |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YKR029C | G2 |  |  |
| YGR094W | G2 | NA | essential |
| YBL031W | G2 |  |  |
| YGR005C | G2 | NA | essential |
| YGR109W-A | G2 | NA | Ty-transposon |
| YPL116W | G2 |  |  |
| YAR007C | G2 | NA | essential |
| YDL093W | G2 |  |  |
| YOL063C | G2 |  |  |
| YJR125C | G2 |  |  |
| YIL036W | G2 |  |  |
| YOR337W | G2 |  |  |
| YOR007C | G2 |  |  |
| YJL128C | G2 |  |  |
| YIL158W | G2 |  |  |
| YHR177W | G2 |  |  |
| YGL066W | G2 |  |  |
| YMR068W | G2 |  |  |
| YER131W | G2 |  |  |
| YFL037W | G2 | NA | essential |
| YDL155W | G2 |  |  |
| YPR120C | G2 |  |  |
| **ORF** | **Phenotype** | **Comment** |
|  | Over-expression | Deletion |  |
| YFL039C | G2 | NA | essential |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

‡NA, not available. These deletion strains were not in the panel.

†ND, not done. These deletion strains did not pass quality control either when they were generated, or when we analyzed them.