Table S1: Gene names, GO function and cross-resistances of 154 DAPG-tolerant deletion mutants -= no growth, +=growth, ++=good growth, nd = no data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Systematic name | gene name | GO molecular function | 120 μg/ml DAPG | 2.5 μg/ml cycloheximide | 70 ng/ml rapamycin | 1.25 M NaCl | pH 9 |
| YPR023C | EAF3 | acetyltransferase activity | + | - | + | + | + |
| YPL086C | ELP3 | acetyltransferase activity | + | - | - | + | nd |
| YNL277W | MET2 | acetyltransferase activity | + | - | + | - | + |
| YPR131C | NAT3 | acetyltransferase activity | + | - | + | + | + |
| YDR508C | GNP1 | amine transmembrane transporter activity | nd | - | + | + | + |
| YOR273C | TPO4 | amine transmembrane transporter activity | + | - | + | + | + |
| YLR364W | GRX8 | antioxidant activity | + | - | + | + | nd |
| YPL106C | SSE1 | ATP binding | + | - | + | - | nd |
| YDR097C | MSH6 | ATPase activity | ++ | + | + | - | nd |
| YDR076W | RAD55 | ATPase activity | + | - | + | - | nd |
| YOL075C | YOL075C | ATPase activity | + | - | + | nd | nd |
| YGL139W | FLC3 | co-factor transporter activity | + | - | + | - | + |
| YOR349W | CIN1 | cytoskeletal binding | + | - | + | + | nd |
| YGL194C | HOS2 | deacetylase activity | + | - | + | + | nd |
| YDR216W | ADR1 | DNA binding | + | - | + | + | nd |
| YIL130W | ASG1 | DNA binding | + | - | + | + | + |
| YOR080W | DIA2 | DNA binding | + | - | - | - | nd |
| YER040W | GLN3 | DNA binding | + | - | ++ | + | nd |
| YJL103C | GSM1 | DNA binding | + | - | + | - | + |
| YOR304W | ISW2 | DNA binding | + | - | + | nd | nd |
| YDL056W | MBP1 | DNA binding | + | - | + | + | - |
| YML032C | RAD52 | DNA binding | ++ | + | + | + | nd |
| YOR380W | RDR1 | DNA binding | - | - | + | + | nd |
| YER161C | SPT2 | DNA binding | + | - | + | + | + |
| YHR178W | STB5 | DNA binding | + | - | + | + | nd |
| YBR150C | TBS1 | DNA binding | + | - | + | + | + |
| YML081W | TDA9 | DNA binding | ++ | + | + | + | nd |
| YOR344C | TYE7 | DNA binding | + | - | + | + | nd |
| YDR369 | XRS2 | DNA binding | + | - | + | + | nd |
| YER184C | YER184C | DNA binding | + | - | + | + | + |
| YGL161C | YIP5 | GTPase binding | + | - | + | + | + |
| YDR051C | DET1 | hydrolase activity | + | - | + | + | nd |
| YDL024C | DIA3 | hydrolase activity | + | - | + | + | + |
| YPL110C | GDE1 | hydrolase activity | + | - | + | + | nd |
| YBR299W | MAL32 | hydrolase activity | + | - | + | + | + |
| YBR204C | YBR204C | hydrolase activity | + | - | + | + | nd |
| YPL087W | YDC1 | hydrolase activity | ++ | - | + | + | nd |
| YDL086W | YDL086W | hydrolase activity | + | - | + | + | + |
| YDR127W | ARO1 | hydro-lyase activity | + | - | - | + | nd |
| YGR254W | ENO1 | hydro-lyase activity | + | - | + | + | + |
| YPR138C | MEP3 | ion transmembrane transporter activity | + | - | + | nd | nd |
| YDR226W | ADK1 | kinase activity | + | - | + | + | nd |
| YER170W | ADK2 | kinase activity | + | - | + | - | + |
| YEL029C | BUD16 | kinase activity | + | - | + | + | + |
| YDR283C | GCN2 | kinase activity | + | - | + | + | + |
| YOR351C | MEK1 | kinase activity | + | - | + | nd | nd |
| YGL019W | CKB1 | kinase regulator activity | ++ | - | + | + | + |
| YGL215W | CLG1 | kinase regulator activity | + | - | + | + | nd |
| YOL049W | GSH2 | ligase activity | - | - | + | nd | nd |
| YDR409W | SIZ1 | ligase activity | + | - | + | + | nd |
| YOR081C | TGL5 | lipase activity | + | (+) | + | + | nd |
| YER175C | TMT1 | methyltransferase activity | + | - | + | + | + |
| YEL061C | CIN8 | motor activity | + | - | - | nd | nd |
| YOL042W | NGL1 | nuclease activity | - | - | + | nd | nd |
| YGR258C | RAD2 | nuclease activity | +/- | - | + | + | + |
| YLR107W | REX3 | nuclease activity | + | - | + | + | nd |
| YOR303W | CPA1 | others | + | - | - | + | + |
| YOL076W | MDM20 | others | - | - | - | nd | nd |
| YLR357W | RSC2 | others | + | - | + | + | nd |
| YOR014W | RTS1 | others | + | - | + | + | nd |
| YOR297C | TIM18 | others | + | - | + | + | nd |
| YML115C | VAN1 | others | + | - | + | + | + |
| YPl061W | ALD6 | oxidoreductase activity | + | - | + | + | + |
| YEL071W | DLD3 | oxidoreductase activity | + | (+) | + | + | nd |
| YBR115C | LYS2 | oxidoreductase activity | + | - | + | + | + |
| YDL085W | NDE2 | oxidoreductase activity | + | - | + | + | + |
| YNL099C | OCA1 | phosphatase activity | + | - | + | + | + |
| YGL212W | VAM7 | phospholipid binding | + | - | + | nd | nd |
| YGL110C | CUE3 | protein binding | + | - | + | + | + |
| YNL084C | END3 | protein binding | + | - | + | + | + |
| YPL137C | GIP3 | protein binding | + | - | + | + | + |
| YHR133C | NSG1 | protein binding | + | - | + | - | nd |
| YBL007C | SLA1 | protein binding | + | - | - | - | + |
| YGR271W | SLH1 | pyrophosphatase activity | + | - | + | + | + |
| YDR092W | UBC13 | regulation of ubiquitin homeostasis | + | - | + | + | nd |
| YDL082W | RPL13A | ribosomal protein | - | - | + | + | + |
| YDR500C | RPL37B | ribosomal protein | + | - | + | - | + |
| YKR094C | RPL40B | ribosomal protein | - | - | + | + | + |
| YLL045C | RPL8B | ribosomal protein | ++ | - | + | + | nd |
| YGL147C | RPL9A | ribosomal protein | nd | - | + | + | + |
| YDR382W | RPP2B | ribosomal protein | + | - | + | + | nd |
| YDL083C | RPS16B | ribosomal protein | + | - | + | + | + |
| YLR287C-A | RPS30A | ribosomal protein | + | - | + | + | nd |
| YPL090C | RPS6A | ribosomal protein | + | - | + | + | nd |
| YBR181C | RPS6B | ribosomal protein | + | - | + | + | nd |
| YNL096C | RPS7B | ribosomal protein | - | - | + | + | + |
| YGR159C | NSR1 | RNA binding | + | - | + | nd | nd |
| YOR359W | VTS1 | RNA binding | + | - | + | + | nd |
| YLR390W-A | CCW14 | structural molecule activity | - | - | + | + | + |
| YIL128W | MET18 | transcription regulator activity | ++ | + | - | - | + |
| YDR443C | SSN2 | transcription regulator activity | + | - | + | + | + |
| YPL230W | USV1 | transcription regulator activity | + | - | + | + | nd |
| YGL017W | ATE1 | transferase activity | ++ | + | + | + | + |
| YPL069C | BTS1 | transferase activity | + | - | + | + | + |
| YCR047C | BUD23 | transferase activity | ++ | - | + | + | + |
| YNL130C | CPT1 | transferase activity | + | - | + | + | + |
| YBR199W | KTR4 | transferase activity | + | - | + | + | nd |
| YDR198C | RKM2 | transferase activity | + | - | + | + | nd |
| YBL011W | SCT1 | transferase activity | + | - | + | + | + |
| YGR162W | TIF4631 | translation factor activity, nucleic acid binding | + | - | + | + | + |
| YOR339C | UBC11 | ubiquitin-protein ligase activity | + | - | + | + | nd |
| YLR024C | UBR2 | ubiquitin-protein ligase activity | + | - | + | + | nd |
| YGL141W | HUL5 | ubiquitin-protein ligase activity | + | - | + | + | + |
| YOR129C | AFI1 | unknown | + | - | + | + | nd |
| YPL099C | AIM43 | unknown | + | - | - | + | nd |
| YPL161C | BEM4 | unknown | + | - | + | + | nd |
| YOR026W | BUB3 | unknown | + | - | + | + | nd |
| YGL029W | CGR1 | unknown | + | - | + | - | + |
| YMR012W | CLU1 | unknown | + | - | + | + | nd |
| YJL003W | COX16 | unknown | + | - | + | + | + |
| YGR093W | DRN1 | unknown | + | - | + | + | + |
| YLR083C | EMP70 | unknown | + | - | + | + | nd |
| YOR382 | FIT2 | unknown | + | - | + | + | nd |
| YJR055W | HIT1 | unknown | + | - | + | + | + |
| YLR384C | IKI3 | unknown | + | - | + | + | nd |
| YGL133W | ITC1 | unknown | + | - | + | + | + |
| YOL009C | MDM12 | unknown | + | - | + | + | nd |
| YPR164W | MMS1 | unknown | + | - | + | + | + |
| YGL211W | NCS6 | unknown | + | - | + | + | nd |
| YCR095C | OCA4 | unknown | + | - | + | + | + |
| YBR230C | OM14 | unknown | + | - | - | + | nd |
| YBR129C | OPY1 | unknown | ++ | + | + | + | + |
| YLR350W | ORM2 | unknown | + | - | + | + | nd |
| YPL112C | PEX25 | unknown | + | - | + | + | nd |
| YER185W | PUG1 | unknown | + | - | + | - | + |
| YML011C | RAD33 | unknown | + | - | + | + | nd |
| YDR351W | SBE2 | unknown | + | - | + | + | nd |
| YBL031W | SHE1 | unknown | + | - | + | + | + |
| YMR140W | SIP5 | unknown | - | - | + | nd | nd |
| YGL213C | SKI8 | unknown | + | - | + | nd | nd |
| YLR385C | SWC7 | unknown | + | - | + | + | nd |
| YDL091C | UBX3 | unknown | + | - | + | + | + |
| YBR173C | UMP1 | unknown | + | - | + | + | + |
| YJR044C | VPS55 | unknown | + | - | + | + | + |
| YPL239W | YAR1 | unknown | (+)/- | - | + | + | nd |
| YBR138C | YBR138C | unknown | + | - | + | + | + |
| YBR242W | YBR242W | unknown | + | - | + | + | nd |
| YDR049W | YDR049W | unknown | + | - | + | + | nd |
| YDR348C | YDR348C | unknown | ++ | - | - | + | nd |
| YEL025C | YEL025C | unknown | - | - | + | - | nd |
| YER156C | YER156C | unknown | + | - | + | + | + |
| YER158C | YER158C | unknown | +/- | - | + | + | + |
| YER186C | YER186C | unknown | + | - | + | + | + |
| YDL072C | YET3 | unknown | nd | nd | nd | nd | nd |
| YGL138C | YGL138C | unknown | + | - | + | + | + |
| YGL159W | YGL159W | unknown | nd | - | + | + | + |
| YLR125W | YLR125W | unknown | + | - | + | + | nd |
| YNL011C | YNL011C | unknown | + | - | + | + | + |
| YOR152C | YOR152C | unknown | + | - | + | + | nd |
| YPL034W | YPL034W | unknown | + | - | + | + | + |
| YPL041C | YPL041C | unknown | nd | nd | nd | nd | nd |
| YPL066W | YPL066W | unknown | + | - | + | + | + |
| YPL067C | YPL067C | unknown | + | - | + | + | + |
| YPL077C | YPL077C | unknown | + | - | + | + | + |