**Supplementary file 1A. List of strains used in this study**

|  |  |  |  |
| --- | --- | --- | --- |
| **Strain** | **Genotype** | **Parent** | **Reference** |
| *C*. *neoformans* H99 | *MATα* (serotype A) |  | Perfect et al., 1993 |
| *ugg1*Δ | *MATα* Cn03648::*NAT*#159 | H99 | This study |
| *ugg1*Δ::*UGGT* | *MATα* Cn03648::*NAT*#159 Cn0348::*NEO* | *ugg1*Δ | This study |
| *mns1*Δ | *MATα* Cn02081::*HyB* | H99 | This study |
| *mns101*Δ | *MATα* Cn03240:: *NAT*#159 | H99 | This study |
| *mns1*Δ::*MNS1* | *MATα* Cn02081::*HyB*Cn02081::*NEO* | *mns1*Δ | This study |
| *mns101*Δ::*MNS101* | *MATα* Cn03240::*NAT*#159Cn03240::*NEO* | *mns101*Δ | This study |
| *mns1*Δ*101*Δ | *MATα* Cn03240::*NAT*#159Cn02081::*HyB* | *mns1*Δ | This study |
| *mns1*Δ*101*Δ::*MNS1* | *MATα*Cn03240::*NAT*#159Cn02081::*HyB*::Cn02081::*NEO* | *mns1*Δ*101*Δ | This study |
| *mns1*Δ*101*Δ::*MNS101* | *MATα*Cn03240::*NAT*#159Cn02081::*HyB*::Cn03240::*NEO* | *mns1*Δ*101*Δ | This study |
| *mnl1*Δ | *MATα* Cn01981::*NAT*#159 | H99 | This study |
| *mnl2*Δ | *MATα* Cn04498::*NAT*#159 | H99 | This study |
| *mnl1*Δ*mnl2*Δ | *MATα* Cn01981::*NAT*#159Cn04498::HyB | *mnl2*Δ | This study |
| *cac1*Δ | *MATα* *cac1*::*NAT*#159 | H99 | Bahn et al., 2004 |
| *cap59*Δ | *MATα* Cn00721::*HYB* | H99 | Thak et al., 2020 |
| *rim101*Δ | *MATα* *rim101*::*NAT* | H99 | O’Meara et al., 2010 |
| *ugg1*Δ::*GFP-UGG1* | *MATα* Cn03648::*NAT*#159SP\_CnGFP\_Cn03648::*NEO* | *ugg1*Δ | This study |
| *MNS1-GFP* | *MATα* Cn02081-CnGFP::*NEO* | H99 | This study |
| *MNS101-GFP* | *MATα* Cn03240-CnGFP::*NEO* | H99 | This study |

\*Each *NAT-STM#* indicates the Natr marker with a unique signature tag

**Supplementary file 1B. List of plasmids used in this study**

|  |  |  |
| --- | --- | --- |
| **Plasmid** | **Description** | **Reference** |
| pNAT-STM#159 | NAT-resistant marker vector for gene disruption | Kim et al., 2009 |
| pJAF | pJAF-based vector containing hygromycin B marker | Hua et al., 2000 |
| pJAFS1 | G418 (NEO)-resistant marker vector | Cheon et al., 2011 |
| pWH091 | G418 (NEO)-resistant marker vector containing codon optimized GFP for *C. neoformans* (Cn*GFP*) | Jung et al., 2009 |
| pT-CnUGG1D\_L | pT-BluntTM-based vector containing the CnUGG1D\_L fragment | This study |
| pT-CnUGG1D\_R | pT-BluntTM-based vector containing the CnUGG1D\_R fragment | This study |
| pJAFS1\_UGG1Com | pJAFS1 containing the *UGG1* ORF | This study |
| pT-CnMNS1D\_L | pT-BluntTM-based vector containing the CnMNS1D\_L fragment | This study |
| pT-CnMNS1D\_R | pT-BluntTM-based vector containing the CnMNS1D\_R fragment | This study |
| pT-CnMNS101D\_L | pT-BluntTM-based vector containing the CnMNS101D\_L fragment | This study |
| pT-CnMNS101D\_R | pT-BluntTM-based vector containing the CnMNS101D\_R fragment | This study |
| pJAFS1\_MNS1Com | pJAFS1 containing the *MNS1* ORF | This study |
| pJAFS1\_MNS101Com | pJAFS1 containing the *MNS101* ORF | This study |
| pT-CnMNL1D\_L | pT-BluntTM-based vector containing the CnMNL1D\_L fragment | This study |
| pT-CnMNL1D\_R | pT-BluntTM-based vector containing the CnMNL1D\_R fragment | This study |
| pT-CnMNL2D\_L | pT-BluntTM-based vector containing the CnMNL2D\_L fragment | This study |
| pT-CnMNL2D\_R | pT-BluntTM-based vector containing the CnMNL2D\_R fragment | This study |
| pJAFS1\_SP\_CnGFP\_UGG1 | pJAFS1 containing the Cn*GFP-UGG1* fusion | This study |
| pWH091-MNS1 | pWH091 containing the *MNS1*-Cn*GFP* fusion | This study |
| pWH091-MNS101 | pWH091 containing the *MNS101-*Cn*GFP* fusion | This study |

**Supplementary file 1C. List of primers used in this study.**

|  |  |  |
| --- | --- | --- |
| **Name** | **Sequence (5′-3′)** | **Purpose** |
| 03648p\_Fw | TTGCAGCGCTTATTTCCC | *UGG1* disruption cassette |
| 03648p\_Rv | GCTCACTGGCCGTCGTTTTACCCCGTTCTATTGTGCAGG | *UGG1* disruption cassette |
| 03648t\_Fw | CATGGTCATAGCTGTTTCCTGGTCGACCTTTGTCAAAACCC | *UGG1* disruption cassette |
| 03648t\_Rv | GCTGAACGCTACTCACTTGA | *UGG1* disruption cassette |
| M13Fe | GTAAAACGACGGCCAGTGAGC | Screening for selection marker genes (*NAT/NEO*) |
| NSL-2 | AACTCCGTCGCGAGCCCCATCAAC | 5′-Region of *NAT* split marker |
| M13Re | CAGGAAACAGCTATGACCATG | Screening for selection marker genes (*NAT/NEO*) |
| NSR-2 | AAGGTGTTCCCCGACGACGAATCG | 3′-Region of *NAT* split marker |
| UGG1 deletion check L | ATGAGAGCAAGCACAGTAGC | Screening for the *ugg1*Δ strain |
| UGG1 deletion check R | GTTACTCTCATTCCGAGCC | Screening for the *ugg1*Δ strain |
| 03648 NAT integration L | TTTACGACAGCGTGGCCCTA | Screening for the *ugg1*Δ strain |
| 03648 NAT integration R | CTAGCACCCATGATCCAATG | Screening for the *ugg1*Δ strain |
| UGG1 promoter Fw | GGGGGCGGCCGCTAGAACGTGCGACCACCGTC | *UGG1* complementation cassette |
| UGG1 promoter Rv | GGGGGATATCCGACGACGGACTTTGAGAAG | *UGG1* complementation cassette |
| UGG1 infusion Left Fw | GTCGACCTCGAGGGGGGGCCC*GATATC*GCTCCAAGACGAGGAAGATG | *UGG1* complementation cassette |
| UGG1infusion Left Rv | CCGCCAAACGTCATACTGTG | *UGG1* complementation cassette |
| UGG1infusion right Fw | CACAGTATGACGTTTGGCGG | *UGG1* complementation cassette |
| 02081\_L1 | CTGTGGAGATCTCCTCGAT | *MNS1* disruption |
| 02081\_L2 | GCTCACTGGCCGTCGTTTTACGCGGTCTTGCGATGTGTT | *MNS1* disruption |
| 02081\_R1 | CATGGTCATAGCTGTTTCCTGCTCCCAGCAACGGTATCCT | *MNS1* disruption cassette |
| 02081\_R2 | GTCTCAAAGCTGATGTCTGC | *MNS1* disruption cassette |
| 02081\_del check L | GGGCAGTTTGTGGCTTCTG | Screening for the *mns1*Δ strain |
| 02081\_del check R | GACCCTACACCACTTCTGG | Screening for the *mns1*Δ strain |
| 02081\_integration\_F1 | AAAGTTCGACAGCGTCTC | Screening for the *mns1*Δ strain |
| 02081\_integration\_R1 | CCCAAGCTGCATCATCGAAA | Screening for the *mns1*Δ strain |
| mns1 comp F1 | ATCGATACCGTCGACCTCGAGCAATAGCCGACGGTAGTC | *MNS1* complementation cassette |
| mns1 comp R1 | TGGGAGCAATACCATCATGG | *MNS1* complementation cassette |
| mns1 comp F2 | CCATGATGGTATTGCTCCCA | *MNS1* complementation cassette |
| mns1 comp R2 | GGTACCGGGCCCCCCCTCGAGTGGTTAACCAGGCTGCTC | *MNS1* complementation cassette |
| ORFconfirm\_Fr | CAATAGCCGACGGTAGTC | Screening for *MNS1* complementation |
| ORFconfirm\_Rv | TCAGTTATGTCACCCCCG | Screening for *MNS1* complementation |
| NEOinteg F1 | TGGATTGCACGCAGGTTCT | Screening for *MNS1* complementation |
| NEOinteg R1 | GAAGAACTCGTCAAGAAGGC | Screening for *MNS1* complementation |
| 03240\_L1 | CGGATCACCACCAGATCACC | *MNS101* disruption cassette |
| 03240\_L2 | GCTCACTGGCCGTCGTTTTACGGTATGTGGGGGGCTTGACA | *MNS101* disruption cassette |
| 03240\_R1 | CATGGTCATAGCTGTTTCCTGATCCCATCGCTGGTCGATC | *MNS101* disruption cassette |
| 03240\_R2 | CGCCGTTTGGAACCACGAT | *MNS101* disruption cassette |
| 03240\_deletion\_L | ATGGGTCGCTCTCTTTCC | Screening for the *mns101*Δ strain |
| 03240\_deletion\_R | TCGGCAAGACCACCAAAG | Screening for the *mns101*Δ strain |
| 03240\_NAT integration\_L | CCCCCTCTCTAAGTACAA | Screening for the *mns101*Δ strain |
| 03240\_NAT integration\_R | ACTCAGTCCTCCATCCTCCA | Screening for the *mns101*Δ strain |
| mns101\_comp\_F1 | ATCGATACCGTCGACCTCGAGGGTATTCTCTCGTTCCGC | *MNS101*complementation cassette |
| mns101\_comp\_R1 | TGTACCAGGGTCCATTCG | *MNS101*complementation cassette |
| mns101\_comp\_F2 | CGAATGGACCCTGGTACA | *MNS101*complementation cassette |
| mns101\_comp\_R2 | GGTACCGGGCCCCCCCTCGAGCATGTCTCCTCCTCATTC | *MNS101*complementation cassette |
| MNS101comp\_confirmFr | CATGAGGTACGACCACCT | Screening for *MNS101* complementation |
| MNS101comp\_confirmRv | CCCAGGATCCATTTAGGC | Screening for *MNS101* complementation |
| 01987\_L1 | AGGTTGCACAGATGCATAGC | *MNL1* disruption cassette |
| 01987\_L2 | CGATTCGCGGACTAGGGAA | *MNL1* disruption cassette |
| 01987\_R1 | TGGTCCTTGATAATAGCAT | *MNL1* disruption cassette |
| 01987\_R2 | ACAAATGGACAAGAGGCGGT | *MNL1* disruption cassette |
| 01987\_deletion\_L | CTCTCTAGATTGACAGGCG | Screening for the *mnl1*Δ strain |
| 01987\_deletion\_R | TACGCGAGAGCACTCGTCTT | Screening for the *mnl1*Δ strain |
| 01987\_NAT integration\_L | CGGCCAAGTAACTGGTTTTC | Screening for the *mnl1*Δ strain |
| 01987\_NAT integration\_R | ATCGTTGTTGGGCTTGGG | Screening for the *mnl1*Δ strain |
| 04498\_L1 | CTGGAGCACTCAAACTGAC | *MNL2* disruption cassette |
| 04498\_L2 | GCTCACTGGCCGTCGTTTTACGAGACTCGCAATTCGCAA | *MNL2* disruption cassette |
| 04498\_R1 | CATGGTCATAGCTGTTTCCTGACAGAGGGCGATCATTGG | *MNL2* disruption cassette |
| 04498\_R2 | TGACGGAAGCAGGTGAGTCT | *MNL2* disruption cassette |
| 04498\_deletion\_L | GTGCCCATACAACCAAACG | Screening for the *mnl2*Δ strain |
| 04498\_deletion\_R | GACAAACATGTGCTGGGC | Screening for the *mnl2*Δ strain |
| 04498\_HyB integration\_L | TGACCTTGCGCGCATGAA | Screening for the *mnl2*Δ strain |
| 04498\_ HyB integration\_R | TGGAGGATGGAGGACTGA | Screening for the *mnl2*Δ strain |
| C17 | ATGGCTACCGCTGTCGCT | RT-PCR primer for *Hxl1*; Cheon et al., 2011 |
| C18 | TGATTCGCGGTTACGGAT | RT-PCR primer for *Hxl1*; Cheon et al., 2011 |
| C19 | CACTCCATTCCTTTCTGC | RT-PCR primer for *Hxl1*; Cheon et al., 2011 |
| C20 | CGTAACTCCACTGTGTCC | RT-PCR primer for *Hxl1*; Cheon et al., 2011 |
| C27 | TCGATGCCAATGGTATCC | RT-PCR primer for *KAR2*; Cheon et al., 2011 |
| C28 | TCATGGCTGAAAGGCATC | RT-PCR primer for *KAR2*; Cheon et al., 2011 |
| C33 | AGCCTTCTCTCCTTGGTC | RT-PCR primer for *ACT1*; Cheon et al., 2011 |
| C34 | ACGATTGAGGGACCAGAC | RT-PCR primer for *ACT1*; Cheon et al., 2011 |
| C51 | CTTCCAGCCTTCTCTCCTTG | qRT-PCR primer for *ACT1*; Cheon et al., 2011 |
| C52 | AGAGGTCCTTCCTGATGTCG | qRT-PCR primer for *ACT1*; Cheon et al., 2011 |
| C53 | CTCTGAGGACGACAAGGACA | qRT-PCR primer for *KAR2*; Cheon et al., 2011 |
| C54 | AGCTCAGAAAGCTGCTCCTC | qRT-PCR primer for *KAR2*; Cheon et al., 2011 |
| Bv\_Not1\_ugg1\_pro \_F1 | AGCTCCACCGCGGTGGCGGCCGCTAGAACGTGCGACCA | GFP-Ugg1 fusion construct |
| SP\_03648pro\_R1 | CTGAAGCTGCGAGGGCTAGAGCTACTGTGCTTGCTCTCATAATGCCCGTTCTATT | GFP-Ugg1 fusion construct |
| SP\_CnGFP\_F2 | TCTAGCCCTCGCAGCTTCAGCCCTAGCGGCGTCCGCGTCTGTGAGCAAGGGCGAG | GFP-Ugg1 fusion construct |
| UGG1ORF\_5gly\_CnGFP\_R2 | AGACTTACGCGTACTGGTGGACCGCCACCGCCACCGGACTTGTACAGCTCGTCCA | GFP-Ugg1 fusion  construct |
| UGG1ORF\_5gly\_CnGFP\_F3 | TGGACGAGCTGTACAAGTCC*GGTGGCGGTGGCGGT*CCACCAGTACGCGTAAGTCT | GFP-Ugg1 fusion construct |
| Bv\_Mfe1\_UGG1ORF \_R3 | GAGGATGGATAGGCCAATTGTGATACCTTTTGTCTTTCTC | GFP-Ugg1 fusion construct |
| BamHI\_MNS1 F1 | CTTGGTACCGAGCTCGGATCCTAGAGGCGCCATCGAAGCAAAG | Mns1-GFP fusion construct |
| MNS1\_GFP R1 | CTCGCCCTTGCTCACACCGCCACCGCCACCGGATCCTGAAAGGGCGAAAGAAGAG | Mns1-GFP fusion construct |
| BamHI\_ MNS101 F1 | CTTGGTACCGAGCTCGGATCCTGATGGAAGAGATCAACATGTT | Mns101-GFP fusion construct |
| MNS101\_GFP R1 | CTCGCCCTTGCTCACACCGCCACCGCCACCGGATCCATCGACCTTATTTTTTAAAACCTCTGG | Mns101-GFP fusion construct |
| qRT\_UGG1\_Fw | CGACCTTCCCTCCAACCC | qRT-PCR primer for *UGG1* |
| qRT\_UGG1\_Rv | GGAAGGTGACAGCGACAGG | qRT-PCR primer for *UGG1* |
| qRT\_MNS1\_Fw | ATCTATGCCGCCCAAGCAGT | qRT-PCR primer for *MNS1* |
| qRT\_MNS1\_Rv | CTGACCGGCCTCGAGCTAAA | qRT-PCR primer for *MNS1* |
| qRT\_ MNS101\_Fw | CATCGGCGCTATGCTTGGTC | qRT-PCR primer for *MNS101* |
| qRT\_ MNS101\_Rv | ACATGGCCGAGGTCTCATGG | qRT-PCR primer for *MNS101* |
| qRT\_MNL1\_Fw | CCTACGTCCAACGAGACGCT | qRT-PCR primer for *MNL1* |
| qRT\_MNL1\_Rv | TTGCCCGTCCAGTCTCCATC | qRT-PCR primer for *MNL1* |
| qRT\_MNL2\_Fw | ATCGCCTCCCATCTCTCCCT | qRT-PCR primer for *MNL2* |
| qRT\_MNL2\_Rv | TGATCGCCCTCTGTCCAACC | qRT-PCR primer for *MNL2* |
| qRT\_GAPDH\_Fw | CCGCTAACATCATCCCTTCT | qRT-PCR primer for *GAPDH* |
| qRT\_GAPDH\_Rv | CCACGACGGATACATCAGAG | qRT-PCR primer for *GAPDH* |
| qRT\_Cap60\_Fw | GCTCACGAGGGTGGAAACT | qRT-PCR primer for *CAP60* |
| qRT\_Cap60\_Rv | GCCTACTCTTCTCTGGCTC | qRT-PCR primer for *CAP60* |
| qRT\_Cap59\_Fw | TTGGGACGGTGCTGGTGAT | qRT-PCR primer for *CAP59* |
| qRT\_Cap59\_Rv | CCATCCAGGCATATTTCGG | qRT-PCR primer for *CAP59* |
| qRT\_Cap64\_Fw | CCGTCCCAGTGATATCCTCA | qRT-PCR primer for *CAP64* |
| qRT\_Cap64\_Rv | CGGCTCCTTTACTTGGGTG | qRT-PCR primer for *CAP64* |
| qRT\_Cap2\_Fw | CACCGGATGAGACTGCATCT | qRT-PCR primer for *CAP2* |
| qRT\_Cap2\_Rv | CCCTCTCCCATCTTCTTACG | qRT-PCR primer for *CAP2* |
| qRT\_Cap10\_Fw | TGCTCGATGCCTCCAATTCC | qRT-PCR primer for *CAP10* |
| qRT\_Cap10\_Rv | TGAACATCCACTCCCTACCC | qRT-PCR primer for *CAP10* |
| qRT\_Pmt4\_Fw | GACCACAAGACTACGGCCA | qRT-PCR primer for *PMT4* |
| qRT\_Pmt4\_Rv | GGCCATACGTCAATGGACTC | qRT-PCR primer for *PMT4* |
| qRT\_Cas1\_Fw | AGGTCGAACAGCAGAAGGGT | qRT-PCR primer for *CAS1* |
| qRT\_Cas1\_Rv | ACCGCAATCTTGACCGAGGT | qRT-PCR primer for *CAS1* |
| qRT\_Uge1\_Fw | GGCTGCTACCATTCCACTCA | qRT-PCR primer for *UGE1* |
| qRT\_Uge1\_Rv | GGGAAGTACTCCTTTGCCTC | qRT-PCR primer for *UGE1* |
| qRT\_Ugd1\_Fw | GCCCAGCGAATTTCCTCTG | qRT-PCR primer for *UGD1* |
| qRT\_Ugd1\_Rv | CGCCTTGAGGAACTTGGAAC | qRT-PCR primer for *UGD1* |
| qRT\_Chs4\_Fw | GGGTGACCAGAGTCGTATCA | qRT-PCR primer for *CSH4* |
| qRT\_Chs4\_Rv | TCCAGCACCTCCTCATCTTG | qRT-PCR primer for *CSH4* |
| qRT\_Chs7\_Fw | TCCATACTTGAGTGGGGGTC | qRT-PCR primer for *CSH7* |
| qRT\_Chs7\_Rv | CTTTTTGATGGTAGCGCCGC | qRT-PCR primer for *CSH7* |
| qRT\_Skn1\_Fw | GGATCAGCCGGGAGATAGTA | qRT-PCR primer for *SKN1* |
| qRT\_Skn1\_Rv | ATACCCCTGATCCCTTGCCT | qRT-PCR primer for *SKN1* |
| qRT\_Kre6\_Fw | GGCGACTCATTCCCCAAGAA | qRT-PCR primer for *KRE6* |
| qRT\_Kre6\_Rv | TCCGATCGTTGGTACACACG | qRT-PCR primer for *KRE6* |
| qRT\_CNAG\_06336\_Fw | GTCGCTGCAGAAGCCTCTAA | qRT-PCR primer for CNAG\_06336 |
| qRT\_CNAG\_06336\_Rv | GCTAGCATCACCTTGAGGG | qRT-PCR primer for CNAG\_06336 |
| qRT\_Exg104\_Fw | CGGCCTAGCTCTTGTCATTC | qRT-PCR primer for *EXG104* |
| qRT\_Exg104\_Rv | TCCAAGCGACATACTCGTCG | qRT-PCR primer for *EXG104* |
| qRT\_Ebg1\_Fw | GCCGACGCTGTTTGGAACTA | qRT-PCR primer for *EBG1* |
| qRT\_Ebg1\_Rv | GGCTTCAGTAAAGGCAGAGC | qRT-PCR primer for *EBG1* |
| qRT\_Sav1\_Fw | TGAACAACATGCATCGCCCG | qRT-PCR primer for *SAV1* |
| qRT\_Sav1\_Rv | AACCGCAGTCCAAACTCGTC | qRT-PCR primer for *SAV1* |
| qRT\_Sec6\_Fw | GCCCGTCGCCATTCAAAAGA | qRT-PCR primer for *SEC6* |
| qRT\_Sec6\_Rv | GAGATGCCGCGAGCATGTT | qRT-PCR primer for *SEC6* |
| qRT\_Sec14\_Fw | CTCGACATCCCCAAGCTCTA | qRT-PCR primer for *SEC14* |
| qRT\_Sec14\_Rv | GTGTCCAACCTCCTCGGAA | qRT-PCR primer for *SEC14* |
| qRT\_Arf1\_Fw | CAGGTATCCGAGGCTCTCAA | qRT-PCR primer for *ARF1* |
| qRT\_Arf1\_Rv | CGCGCGTCTAACTTTGTGAC | qRT-PCR primer for *ARF1* |
| qRT\_Vph1\_Fw | GTTTGACTTTAACGGCGGGC | qRT-PCR primer for *VPH1* |
| qRT\_ Vph1\_Rv | CCCAATGCAACCTCAATGCG | qRT-PCR primer for *VPH1* |
| qRT\_Apt1\_Fw | CAAAACCATGGCCAGCACGA | qRT-PCR primer for *APT1* |
| qRT\_ Apt1\_Rv | CCCCGAAACCTCTCCCTAAA | qRT-PCR primer for *APT1* |
| qRT\_Grasp\_Fw | CGCTTGGTCAGAAGAAGCGT | qRT-PCR primer for *GRASP* |
| qRT\_Grasp\_Rv | GGCTCCCTTCTAAGACATCC | qRT-PCR primer for *GRASP* |
| qRT\_Aim25\_Fw | GGCATGACCGAGGATGAAC | qRT-PCR primer for *AIM25* |
| qRT\_Aim25\_Fw | ACCCTTCCAAACCTTCTGGG | qRT-PCR primer for *AIM25* |
| qRT\_Cin1\_Fw | TAACGGCTCCAACGGCGTT | qRT-PCR primer for *CIN1* |
| qRT\_Cin1\_Rv | CCTCGAGAAGGACGATGA | qRT-PCR primer for *CIN1* |
| qRT\_Vps15\_Fw | TCGAATGCCCGAAGGTTCAC | qRT-PCR primer for *VPS15* |
| qRT\_Vps15\_Rv | ATCGCGTCATAGTGGGGTTG | qRT-PCR primer for *VPS15* |
| qRT\_Vps27\_Fw | TCAGGAGGTGTCAGTGGCT | qRT-PCR primer for *VPS27* |
| qRT\_Vps27\_Rv | CCCTGATACCTTCCTTTCCC | qRT-PCR primer for *VPS27* |
| qRT\_Vps34\_Fw | TCCAGAGCCTATGCTACACC | qRT-PCR primer for *VPS34* |
| qRT\_Vps34\_Rv | GCTTTATCTGGCTCCAGCTG | qRT-PCR primer for *VPS34* |
| qRT\_Hse1\_Fw | CGTATTATCCAGCCCATGCG | qRT-PCR primer for *HSE1* |
| qRT\_Hse1\_Rv | CCGACTGTCACACCTTCCA | qRT-PCR primer for *HSE1* |
| qRT\_CNAG\_07029\_Fw | CCTCCTCGTGGACAAGACA | qRT-PCR primer for CNAG\_07029 |
| qRT\_CNAG\_07029\_Rv | AGGCCAACAACACCGGATAG | qRT-PCR primer for CNAG\_07029 |

\*Underlined sequences correspond to restriction enzyme sites

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