

### Additional File 6: Table S3

Table S3. Genes and primers used for qPCR.

| Gene               | GenBank accession number | Primer  | Sequence 5'-3'           | Amplicon size (bp) | Description <sup>c</sup>  |
|--------------------|--------------------------|---------|--------------------------|--------------------|---|
| RML <sup>a,b</sup> | A02536.1                 | rml-f   | AGCATTGATGGTGGTATCCGC    | 179                | Rhizomucor miehei lipase  |
|                    |                          | rml-r   | ATAGATGAGCGTGCTCCAAGT    |                    |   |
| GAP <sup>a,b</sup> | PPU62648                 | gap-f   | TACGTCATTGAGTCCACCGGT    | 184                | glyceraldehyde-3-phosphate  |
|                    |                          | gap-r   | TGGTAGTACAAGAACGATTGGAG  |                    | dehydrogenase   |
| HAC1 <sup>b</sup>  | FR839628                 | HAC1-f  | CAAGAACATGCCAAAGCC       | 199                | bZIP transcription factor that regulates UPR  |
|                    |                          | HAC1-r  | TGCGAGTGGATGTAGATGC      |                    |   |
| PDI <sup>b</sup>   | ACF17572                 | PDI-f   | GAGCAACAAGAACGTTGGAGTTCC | 260                | Protein disulfide isomerase (PDI)   |
|                    |                          | PDI-r   | CCTCATAAGCAGGAGGCCATT    |                    |   |
| ERO1 <sup>b</sup>  | XP_002489645             | ERO1-f  | CGTTAGCAAACCCCTCAAATCC   | 201                | PDI oxidase; glycoprotein required for oxidative protein folding in the ER, protein thiol-disulfide exchange  |
|                    |                          | ERO1-r  | GCAGAACATCCCTCATCACCAATT |                    |   |
| KAR2 <sup>b</sup>  | XM_002490982             | KAR2-f  | CCTACTTCAACGACGCTCAA     | 199                | BiP, a major Hsp70 chaperone in the ER  |
|                    |                          | KAR2-r  | CCACCCCTCAATAGAAAGCAGA   |                    | (Sc), an ATPase regulates UPR; involved in ER quality control and ER-associated degradation   |
| BFR2 <sup>b</sup>  | CCA39876                 | BFR2-f  | TGTGAGCCAAGAGTTTCCC      | 227                | ER-to-Golgi transport, rDNA processing  |
|                    |                          | BFR2-r  | TGTCTGCCAATAGTTGTCCAC    |                    | (Sc)  |
| PMR1 <sup>b</sup>  | DQ239958                 | PMR1-f  | TTCACGCTTCCCACTTGA       | 187                | Ca <sup>2+</sup> and Mg <sup>2+</sup> transport in ATPase   |
|                    |                          | PMR1-r  | TTGGCTGTTCCGATGACA       |                    |   |
| SSO2 <sup>b</sup>  | FR839628                 | SSO2-f  | GTTCTCAACGGCTTGTCT       | 194                | Secretory vesicle fusion with plasma membrane   |
|                    |                          | SSO2-r  | TGTCTACCAAGTTCTCGGTCT    |                    |   |
| MON2 <sup>b</sup>  | FR839629                 | MON2-f  | GGGACTCTTGGGTATTTCG      | 249                | Golgi-to-endosome traffic, endocytosis, vacuole integrity   |
|                    |                          | MON2-r  | ATCGGGCTCACCATCTTA       |                    |   |
| VPS10 <sup>b</sup> | FR839629                 | VPS10-f | TGAAGAATGGACGGGAAG       | 221                | Vacuolar protein sorting in Golgi membrane, late-Golgi  |
|                    |                          | VPS10-r | GCTCACATCGGTTAGACTCTG    |                    |   |
| IMH1 <sup>b</sup>  | CCA37012                 | IMH1-f  | CGGATTCCAGTTACTAAGCGA    | 219                | Protein involved in vesicular transport; mediates transport between an endosomal compartment and Golgi; contains a Golgi localization (GRIP) domain |
|                    |                          | IMH1-r  | AGGGTGTAGCAGATGAGCGA     |                    |   |
| SSE1 <sup>b</sup>  | CCA37673                 | SSE1-f  | TGGACGAACCTAAAGTGTAGGG   | 184                | Nuclease exchange factors for HSP70 chaperones, ATPase of the Hsp90 chaperone complex; binds unfolded proteins; localized in cytoplasm              |
|                    |                          | SSE1-r  | CAAGGCTGAAGATGTGGAC      |                    |   |
| SEC31 <sup>b</sup> | CCA37204                 | SEC31-f | CGTGTTCCTCAATCAGCCA      | 198                | COPII coat of secretory pathway vesicle component (p150), involved in protein transport from ER to Golgi; structural molecule                       |
|                    |                          | SEC31-r | TAGTTGCCTGGGTGAAGCA      |                    |   |
| AQR1 <sup>b</sup>  | CCA37767                 | AQR1-f  | GCACCAGCAGTTCCATAG       | 201                | Plasma membrane multidrug transporter of the major facilitator superfamily  |
|                    |                          | AQR1-r  | GAATACCAACATACCCAGGACT   |                    |   |

Primers of PDI and ERO1 as described by Sha et al. (2013). <sup>a</sup>Primers used for gene copy number quantification. <sup>b</sup>Primers used for transcription analysis. <sup>c</sup>As described by Gasser et al. (2007) and Idiris et al. (2010).