



B

| Yeast Species | Rsc1/2 ortholog protein identifier | Rsc2 score | Rsc2 E value | Rsc1 score | Rsc1 E value |
|------------------------------------|------------------------------------|------------|--------------|------------|--------------|
| <i>Candida glabrata</i> * | CAG57994.1 | 794 | 0 | 637 | 0 |
| <i>Candida glabrata</i> * | CAG61377.1 | 695 | 0 | 762 | 0 |
| <i>Naumovozyma castellii</i> * | XP_003673169.1 | 788 | 0 | 698 | 0 |
| <i>Naumovozyma castellii</i> * | XP_003678436.1 | 704 | 0 | 651 | 0 |
| <i>Vanderwaltozyma polyspora</i> * | XP_001643414.1 | 718 | 0 | 770 | 0 |
| <i>Vanderwaltozyma polyspora</i> * | XP_001643343.1 | 621 | 0 | 583 | 0 |
| <i>Zygosaccharomyces rouxii</i> | ZYR00B07986p | 875 | 0 | 805 | 0 |
| <i>Ashbya gossypii</i> | ABL005Cp | 751 | 0 | 687 | 0 |
| <i>Lachancea thermotolerans</i> | XP_002551602.1 | 785 | 0 | 711 | 0 |
| <i>Kluyveromyces lactis</i> | CAH025113.1 | 501 | 2E-163 | 506 | 8E-165 |
| <i>Candida albicans</i> | EEQ42885.1 | 405 | 3E-128 | 398 | 4E-125 |
| <i>Yarrowia lipolytica</i> | XP_503084.1 | 316 | 5E-95 | 288 | 2E-84 |
| <i>Schizosaccharomyces pombe</i> | CAA19283.1 | 224 | 1E-62 | 223 | 4E-62 |

| Yeast Species | Rsc3/30 ortholog protein identifier | Rsc3 score | Rsc3 E value | Rsc30 score | Rsc30 E value |
|------------------------------------|-------------------------------------|------------|--------------|-------------|---------------|
| <i>Candida glabrata</i> * | CAG59797.1 | 389 | 5E-123 | 113 | 3E-36 |
| <i>Candida glabrata</i> * | CAG58494.1 | 149 | 2E-37 | 100 | 4E-22 |
| <i>Naumovozyma castellii</i> * | XP_003677109.1 | 532 | 2E-177 | 143 | 1E-35 |
| <i>Naumovozyma castellii</i> * | XP_003673610.1 | 75.1 | 2E-14 | 77.8 | 4E-15 |
| <i>Vanderwaltozyma polyspora</i> * | XP_001646730.1 | 495 | 2E-163 | 103 | 3e-323 |
| <i>Vanderwaltozyma polyspora</i> * | XP_001642773.1 | 358 | 4E-111 | 119 | 5E-28 |
| <i>Zygosaccharomyces rouxii</i> | ZYR00C13882p | 577 | 0 | 127 | 2E-30 |
| <i>Ashbya gossypii</i> | AAL057Cp | 400 | 1E-126 | 97.1 | 7E-21 |
| <i>Lachancea thermotolerans</i> | No significant ortholog | | | | |
| <i>Kluyveromyces lactis</i> | | | | | |
| <i>Candida albicans</i> | | | | | |
| <i>Yarrowia lipolytica</i> | | | | | |
| <i>Schizosaccharomyces pombe</i> | | | | | |

Figure 5- supplement 3. (A) Appearance of RSC1/RSC2 and RSC3/RSC30 in yeast evolution. Phylogenetic tree adapted from OhÉigeartaigh et al, 2011 with the appearance of RSC1/RSC2, and RSC3/RSC30. WGD refers to whole genome duplication. Duplication of RSC2 and RSC3 resulted in RSC1 and RSC30 in *S. cerevisiae*. While the duplicated genes in other organisms may still more closely resemble RSC2 or RSC3, RSC1 and RSC30 have been used to indicate the duplicated copy. (B) Scores from NCBI Fungal Blast for RSC1/RSC2 and RSC3/RSC30 orthologs.