Genome sequencing and analysis of the versatile cell factory Aspergillus niger CBS 513.88

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| Gene | Genbank no | Linkage group | Super-contig | Orf name | reference CHEF | reference parasexual analysis |
|------|------------|---------------|--------------|----------|----------------|-------------------------------|
| abfA | L29005     | II            | 1            | An01g00330 | this study      |                               |
| pepB | M68871     | II            | 1            | An01g00530 | 1              | 1                             |
| xyrA | AF219625   | II            | 1            | An01g03740 | this study      |                               |
| cpcA | X99215     | II            | 1            | An01g07900 | this study      |                               |
| kexB | Y18127     | II            | 1            | An01g08530 | this study      |                               |
| xlnD | Z84377     | II            | 1            | An01g09960 | this study      |                               |
| pgal | X58892     | II            | 1            | An01g11520 | this study      |                               |
| cbhB | AF156269   | II            | 1            | An01g11660 | this study      |                               |
| pgaE | Y14386     | II            | 1            | An01g14670 | this study      |                               |
| goxC | X16061     | II            | 1            | An01g14740 | 3,4            |                               |
| creA | L03811     | IV            | 2            | An02g03830 | 5              |                               |
| pkaC | X94399     | IV            | 2            | An02g04270 | 6              |                               |
| pgaB | Y18805     | IV            | 2            | An02g04900 | this study      |                               |
| mpdA | AY081178   | IV            | 2            | An02g05830 | this study      |                               |
| pepE | U03278     | IV            | 2            | An02g07210 | 1              | 1                             |
| pacC | X98417     | IV            | 2            | An02g07890 | 8              | 8                             |
| aglB | Y18586     | IV            | 2            | An02g11150 | this study      |                               |
| hxAk | AJ009973   | IV            | 2            | An02g14380 | this study      |                               |
| pelB | X65552     | VI            | 3            | An03g00190 | this study      |                               |
| axhA | Z78011     | VI            | 3            | An03g00960 | this study      |                               |
| rDNA | X78538     | VI            | 3            | An03e03200 | this study      |                               |
| pmeA | X54145     | VI            | 3            | An03g06310 | this study      |                               |
| glaA | AY250996   | VI            | 3            | An03g06550 | 9              |                               |
| glcA | AY955284   | VI            | 4            | An04g04890 | 10             |                               |
| acuA | X16990     | VI            | 4            | An04g05620 | 11             |                               |
| pgaC | A21180     | VII           | 5            | An05g02440 | this study      |                               |
| aglA | X63348     | VIII          | 6            | An06g00170 | 9              |                               |
| Gene   | Accession | Location | Description | Additional Info |
|--------|-----------|----------|-------------|-----------------|
| xkiA   | AJ305311  | IV       |             |                 |
| pepC   | M69758    | IV       |             | this study      |
| pepF   | X79541    | IV       |             | this study      |
| egfB   | X54145    | IV       |             | this study      |
| rodA   | DQ349135  | IV       |             | this study      |
| cbhA   | AF156268  | IV       |             | this study      |
| trpC   | X07071    | VIII     |             |                 |
| acuB   | U56097    | VIII     |             |                 |
| cprA   | Z26938    | VIII     |             |                 |
| niaD   | M77022    | VIII     |             |                 |
| faeA   | Y09330    | I        |             |                 |
| abnA   | L23430    | I        |             |                 |
| rgaeA  | AJ242854  | I        |             |                 |
| pgaD   | Y18806    | I        |             |                 |
| bphA   | X52521    | I        |             |                 |
| pepD   | L19059    | I        |             |                 |
| prtF   | AJ567910  | V        |             |                 |
| plyA   | AJ276331  | V        |             |                 |
| pelC   | AY839647  | VII      |             | This study      |
| bipA   | Y08868    | VII      |             |                 |
| nicB   | T. Goosen (personal communication) | VII | 11 | An11g04180 | This study |
| rhgA   | X94220    | III      |             | this study      |
| pyrA   | X96734    | III      |             |                 |
| axeA   | A22880    | III      |             | this study      |
| pgaX   | A39428    | III      |             | this study      |
| glkA   | X99626    | III      |             | this study      |
| areA   | X81998    | III      |             | this study      |
| faeB   | AJ309807  | III      |             | this study      |
| alcB   | AY955276  | II       |             | this study      |
| Gene | Accession | Chromosome | Gene ID | Study(s) |
|------|-----------|------------|---------|----------|
| egIA | AJ224451  | I          | 14 An14g02760 | this study |
| argB | M19158    | I          | 14 An14g03400 | This study |
| rhgB | X94221    | I          | 14 An14g04200 | This study |
| pelA | X60724    | I          | 14 An14g04370 | This study |
| pepA | U03507    | I          | 14 An14g04710 | This study |
| aguA | AJ290451  | I          | 14 An14g05800 | This study |
| abfB | L23502    | III        | 15 An15g02300 | This study |
| pgalI | X58893   | III        | 15 An15g05370 | This study |
| xlnR | AJ001909  | III        | 15 An15g05810 | This study |
| gpdA | X99652    | V          | 16 An16g01830 | This study |
| pkaR | AJ296317  | V          | 16 An16g03740 | This study |
| pgaA | Y18804    | V          | 16 An16g06990 | this study |
| gatA | AY955283  | V          | 17 An17g00910 | this study |
| nirA (L) | M68900 | VIII      | 18 An18g02330 | this study |
| bglA | AF121777  | VIII      | 18 An18g03570 | this study |
| pelD | M55657    | IV         | 19 An19g00270 | this study |

1) the oahA gene corresponds with the prtF mutation
2) the cpcA disruption was mapped to linkage group II using the parasexual cycle
   (results not shown)

**References Supplementary Table 4**

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