

Additional File 28. Number of flavohemoglobins and protein IDs found in the genome sequences of the *Aspergillus* species.

| Name                   | Strain     | # of genes | % Growth Inhibition | Locus tag <sup>1</sup>       | Flavo type  | Length | Predicted localization                  |
|------------------------|------------|------------|---------------------|------------------------------|-------------|--------|---|
| <i>A. glaucus</i>      | CBS 516.65 | 1          | 17                  | Aspgl1_0031833               | <i>fhbA</i> | 415 aa | cytosol; nucleus                        |
| <i>A. tubingensis</i>  | CBS 134.48 | 2          | 40                  | Asptu1_0052006               | <i>fhbA</i> | 456 aa | cytosol; nucleus                        |
|                        |            |            |                     | Asptu1_0195204               | <i>fhbA</i> | 417 aa | cytosol; nucleus                        |
| <i>A. zonatus</i>      | CBS 506.65 | 2          | 82                  | Aspzo1_0148118               | <i>fhbA</i> | 411 aa | cytosol; nucleus                        |
|                        |            |            |                     | Aspzo1_0056900               | <i>fhbB</i> | 429 aa | cytosol; nucleus                        |
| <i>A. brasiliensis</i> | CBS 101740 | 2          | 79                  | Aspbr1_0049986               | <i>fhbA</i> | 417 aa | cytosol; nucleus                        |
|                        |            |            |                     | Aspbr1_0047169               | <i>fhbA</i> | 455 aa | cytosol; nucleus                        |
| <i>A. versicolor</i>   | CBS 795.97 | 2          | 74                  | Aspve1_0140313               | <i>fhbA</i> | 412 aa | cytosol; nucleus                        |
|                        |            |            |                     | Aspve1_0056118               | <i>fhbB</i> | 424 aa | cytosol; nucleus                        |
| <i>A. sydowii</i>      | CBS 593.65 | 2          | 58                  | Aspsy1_0092771               | <i>fhbA</i> | 413 aa | cytosol; nucleus                        |
|                        |            |            |                     | Aspsy1_0158001               | <i>fhbB</i> | 426 aa | cytosol; nucleus                        |
| <i>A. oryzae</i>       | Rib40      | 2          |                     | AO090011000202               | <i>fhbA</i> | 415 aa | cytosol; mitochondrial; nucleus         |
|                        |            |            |                     | AO090012000171               | <i>fhbB</i> | 436 aa | mitochondrion                           |
| <i>A. niger</i>        | ATCC1015   | 2          | 11                  | 201503                       | <i>fhbA</i> | 417 aa | cytosol                                 |
|                        |            |            |                     | 54097                        | <i>fhbA</i> | 456 aa | cytosol; nucleus                        |
| <i>A. luchuensis</i>   | CBS 106.47 | 2          | 15                  | e_gw1.9.1180.1               | <i>fhbA</i> | 417 aa | cytosol; nucleus                        |
|                        |            |            |                     | estExt_Genewise1.C_10_t10326 | <i>fhbA</i> | 456 aa | extracellular,<br>cytosol;mitochondrion |
| <i>A. niger</i>        | NRRL3      | 2          | -21                 | NRRL3_00799                  | <i>fhbA</i> | 417 aa | cytosol; nucleus                        |
|                        |            |            |                     | NRRL3_10307                  | <i>fhbA</i> | 456 aa | extracellular,<br>cytosol;mitochondrion |
| <i>A. wentii</i>       | DTO 134-E9 | 1          | 85                  | Aspwe1_0174689               | <i>fhbA</i> | 415 aa | cytosol; nucleus                        |
| <i>A. niger</i>        | CBS 513.88 | 2          | 72                  | An14g02460                   | <i>fhbA</i> | 417 aa | cytosol                                 |
|                        |            |            |                     | An18g01780                   | <i>fhbA</i> | 336 aa | cytosol; nucleus                        |

|                       |                           |   |    |                                      |                            |                  |   |
|-----------------------|---------------------------|---|----|--------------------------------------|----------------------------|------------------|---|
| <i>A. fischeri</i>    | CBS 544.65                | 1 | 72 | NFIA_030070                          | <i>fhbA</i>                | 413 aa           | cytosol; nucleus                                    |
| <i>A. terreus</i>     | NCCB IH2624               | 2 | 81 | ATEG_02147<br>ATEG_07899             | <i>fhbA</i><br><i>fhbB</i> | 415 aa<br>427 aa | cytosol; nucleus<br>cytosol; nucleus                |
| <i>A. flavus</i>      | NRRL 3357<br>(CBS 128202) | 2 | 62 | AFL2G_04980<br>AFL2G_03098           | <i>fhbA</i><br><i>fhbB</i> | 416 aa<br>431 aa | cytosol; nucleus<br>cytosol; nucleus                |
| <i>A. fumigatus</i>   | Af 293                    | 2 | 73 | Afu4g03410<br>Afu8g06080             | <i>fhbA</i><br><i>fhbB</i> | 412 aa<br>432 aa | cytosol<br>cytosol; mitochondrial; nucleus          |
| <i>A. clavatus</i>    | NRRL1<br>(CBS 513.65)     | 2 | 94 | ACLA_055100<br>ACLA_018040           | <i>fhbA</i><br><i>fhbA</i> | 409 aa<br>458 aa | cytosol; nucleus<br>cytosol; nucleus                |
| <i>A. nidulans</i>    | FGCS A4                   | 2 | 74 | AN7169<br>AN3522                     | <i>fhbA</i><br><i>fhbB</i> | 410 aa<br>426 aa | cytosol; nucleus<br>cytosol; mitochondrial; nucleus |
| <i>A. carbonarius</i> | DTO 115-B6                | 1 | 45 | Acar5010_400189                      | <i>fhbA</i>                | 417 aa           | cytosol; nucleus                                    |
| <i>A. aculeatus</i>   | CBS 172.66                | 2 | 73 | Aacu16872_050856<br>Aacu16872_063347 | <i>fhbA</i><br><i>fhbB</i> | 418 aa<br>430 aa | cytosol; nucleus<br>cytosol; nucleus                |

<sup>1</sup> Proteins IDs correspond to: Broad Institute - *Aspergillus* Comparative Database (*A. fischeri*, *A. oryzae*, *A. fumigatus*, *A. terreus*, *A. clavatus*, *A. nidulans*, *A. flavus*) and JGI (*A. aculeatus*, *A. carbonarius*, *A. brasiliensis*, *A. glaucus*, *A. tubingensis*, *A. wentii*, *A. zonatus*, *A. versicolor*, *A. sydowii*).