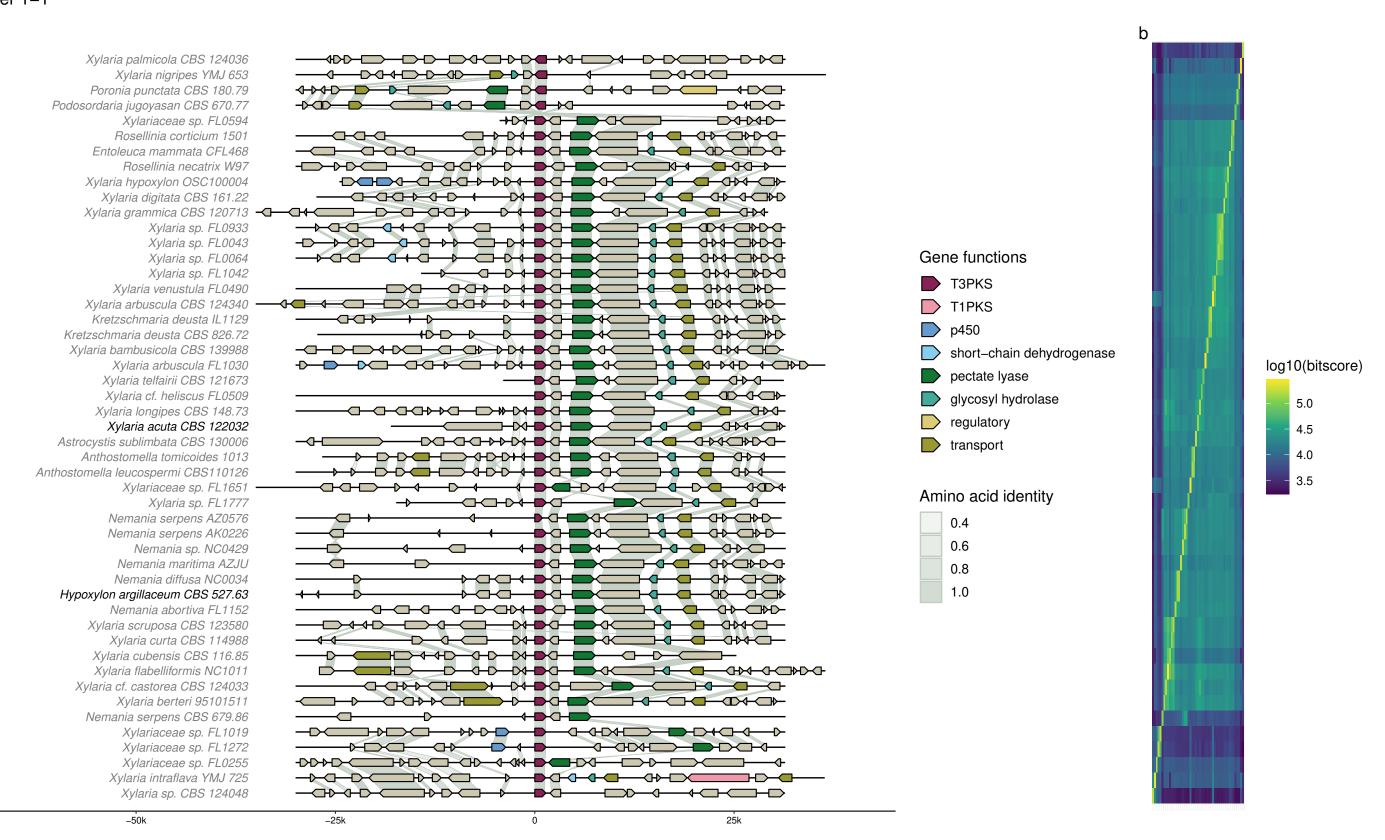
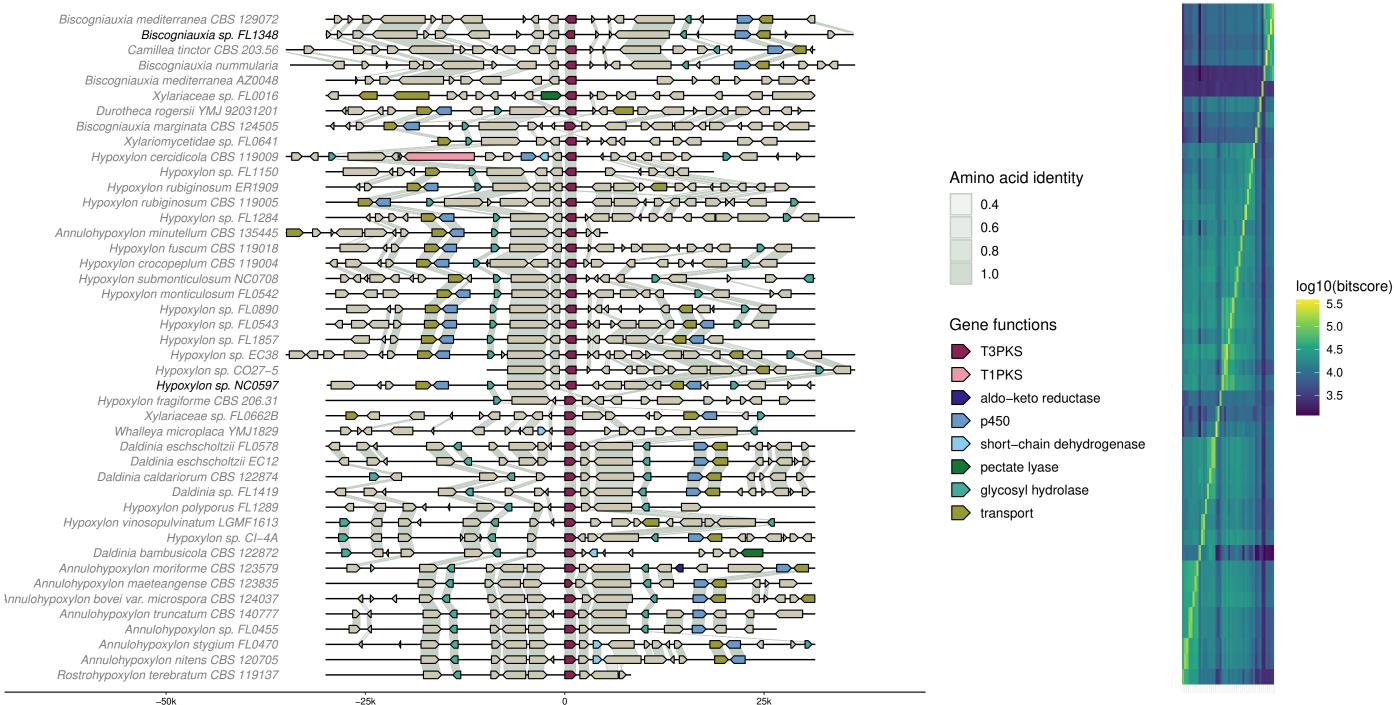
a



a



b

_50k

_25k

а

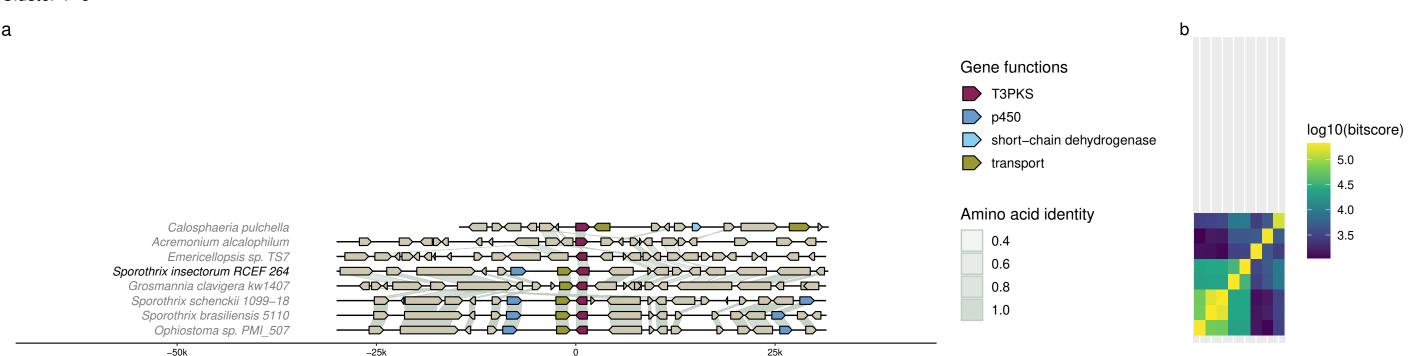
b Colletotrichum orbiculare 104-T Colletotrichum chlorophyti NTL11 Colletotrichum lupini IMI 504893 Colletotrichum Iupini CBS 109225 Colletotrichum cuscutae IMI 304802 Colletotrichum abscissum IMI 504890 \rightarrow Colletotrichum simmondsii CBS122122 -D-DX-1-D-04-C-- \rightarrow Glomerella acutata (Colletotrichum fioriniae MH 18) Colletotrichum phormii CBS102054 D-CI-DCI-DKI Colletotrichum godetiae CBS 193.32 Colletotrichum fioriniae PJ7 \leftarrow -aColletotrichum acutatum CBS 112980 \leftarrow $\prec \neg \prec$ -Colletotrichum sp. CBS 101611 Colletotrichum tamarilloi CBS 129955 K-D-C-D-C Colletotrichum melonis CBS 134730 Colletotrichum costaricense IMI 309622 \longrightarrow \leftarrow Colletotrichum paranaense IMI 384185 Colletotrichum nymphaeae SA-01 α Plectosphaerella cucumerina MPI-SDFR-AT-0117 Plectosphaerella cucumerina DS2psM2a2 Plectosphaerella cucumerina RP01 Verticillium dahliae MPI-CAGE-AT-0001 Verticillium dahliae VdLs.17 $\neg \leftarrow$ Colletotrichum tofieldiae CBS 168.49 - Colletotrichum tofieldiae 0861 $\overline{}$ Colletotrichum incanum MAFF 238712 Colletotrichum higginsianum IMI 349063 Gene functions Colletotrichum navitas CBS125086 440-040-0 T3PKS Colletotrichum graminicola M1.001 \bowtie Colletotrichum zoysiae MAFF235873 $\times - \times$ p450 Colletotrichum somersetensis CBS 131599 Colletotrichum caudatum CBS131602 short-chain dehydrogenase Colletotrichum sublineola TX430BB glycosyl hydrolase Colletotrichum eremochloae CBS129661 \times Colletotrichum sublineola CBS 131301 transport Colletotrichum falcatum MAFF306170 Colletotrichum cereale CBS 129662 Colletotrichum salicis CBS607.94 Amino acid identity Colletotrichum orchidophilum IMI 309357 0.4 Ila cingulata 23 (Colletotrichum gloeosporioides 23) -DMO-D-Colletotrichum gloeosporioides Cg-14 0.6 Scedosporium apiospermum IHEM 14462 Lomentospora prolificans JHH-5317 0.8 Podospora didyma CBS 232.78 \leftarrow 1.0 Apodospora peruviana CBS 118394 Lasiosphaeris hirsuta SMH4607-1 Lasiosphaeris hispida CBS 955.72 Podospora appendiculata CBS 314.62 $\overline{}$ \rightarrow Ophiostoma piceae UAMH 11346 40 Ophiostoma novo-ulmi subsp. novo-ulmi H327 Ophiostoma piliferum Pestalotiopsis sp. NC0098 Pestalotiopsis fici W106-1 Truncatella angustata MPI-SDFR-AT-0073 Xylariales sp. AK1849 Q-D+D-D-Q-Xylariales sp. PMI_506 Khuskia oryzae ATCC 28132 -0-DX3-C3-D4-D4-H-C3-D-0XC3-C3-Arthrinium esporlense UNIPAMPA010 Apiospora montagnei NRRL 25634 Hypoxylon trugodes CBS 135444 Hypoxylon sp. NC1633 Daldinia loculata AZ0526 D-CHC-HD-Daldinia loculata CBS 113971 40000Daldinia loculatoides CBS 113279 \leftarrow Daldinia grandis CBS 114736 4000044 Daldinia decipiens CBS 113046 - Daldinia vernicosa CBS 139.73 **−₩<□−₩−□−□** Eutypa lata UCREL1 Diatrype disciformis NRRL 26140 Xylariomycetidae sp. FL2044 Cercophora scortea SMH4131-1

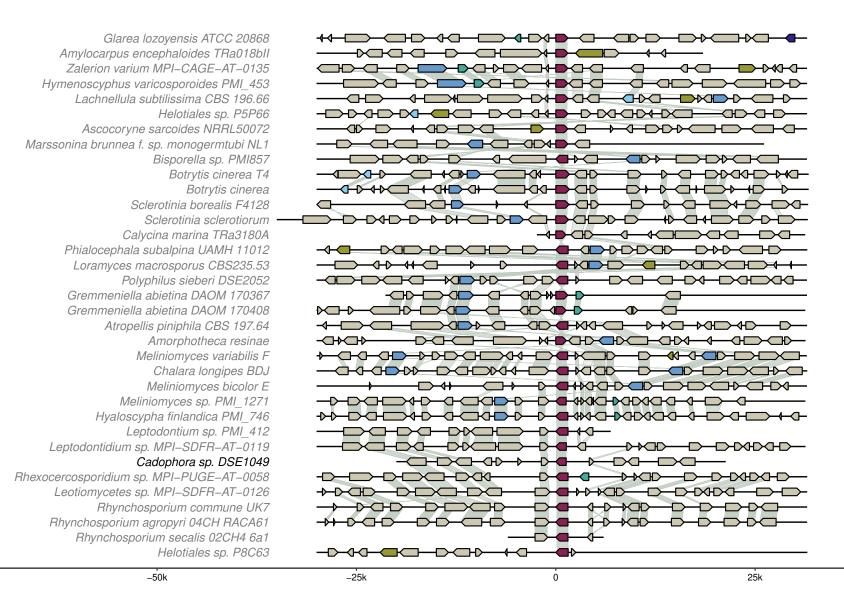
log10(bitscore)

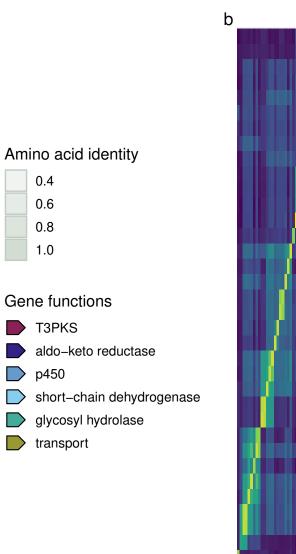
b Fusarium oxysporum Fo47 XIX Fusarium oxysporum NRRL 26365 Fusarium oxysporum f. sp. albedinis isolate 9 $\times \to \times 1$ Fusarium oxysporum f. sp. matthiolae PHW726 Fusarium oxysporum f. sp. pisi T415 Fusarium oxysporum Fo5176 Fusarium oxysporum MPI-SDFR-AT-0094 \times Fusarium oxysporum F2-07 Fusarium oxysporum F2-02 $\times \to \times \to$ Fusarium oxysporum F2-04 \times XIX Fusarium oxysporum F2-01 Fusarium oxysporum F10-08 Fusarium oxysporum F10-04 Fusarium oxysporum F10-10 XIX ∞ Fusarium oxysporum F10-03 Fusarium oxysporum MRL8996 Fusarium oxysporum MPI-CAGE-CH-0212 Fusarium commune MPI-SDFR-AT-0072 Fusarium proliferatum ET1 Fusarium proliferatum NRRL 62905 Fusarium fujikuroi IMI 58289 Fusarium mangiferae MRC7560 Gene functions Fusarium redolens MPI-CAGE-AT-0023 T3PKS Fusarium tricinctum MPI-SDFR-AT-0044 Fusarium tricinctum MPI-SDFR-AT-0068 T1PKS Fusarium pseudograminearum CS3096 p450 Fusarium graminearum Z3639 log10(bitscore) Fusarium langsethiae Fl201059 \leftarrow short-chain dehydrogenase Fusarium venenatum MPI-CAGE-CH-0201 5.0 regulatory Fusarium poae 2516 4.5 Fusarium sp. FIESC 12 MPI-CAGE-AA-0113 ADVINE N transport 4.0 Fusarium bataticola FSSC 23 Fusarium solani FSSC 5 -X-D-(1- 3.5 Fusarium vanettenii T31 FSSC 11 -X-D-X-3.0 Amino acid identity Fusarium vanettenii T110 2.5 Fusarium vanettenii T33 0.4 Fusarium vanettenii T161 0.6 Fusarium vanettenii 77-13-4 Fusarium vanettenii T77, FSSC 11 8.0 Fusarium vanettenii T299, FSSC 11 1.0 Fusarium vanettenii T95 Fusarium vanettenii T126 Neocosmospora boninensis NRRL 22470 Fusarium cucurbiticola FSSC 10 Mariannaea sp. PMI 226 Cylindrocarpon olidum MPI-CAGE-CH-0241 Stachybotrys chlorohalonata IBT 40285 Stachybotrys chartarum IBT 40288 Stachybotrys elegans MPI-CAGE-CH-0235 Dactylonectria macrodidyma MPI-CAGE-AT-0147 Dactylonectria estremocensis MPI-CAGE-AT-0021 Ilyonectria europaea PMI82 Ilyonectria sp. MPI-CAGE-AT-0026 Ilyonectria robusta PMI 751 Ilyonectria sp. MPI-CAGE-AT-0134 Neonectria ditissima R09/05 Sarocladium strictum UNK Acremonium strictum DS1bioAY4a Ilyonectria europaea PMI82 Ilyonectria sp. MPI-CAGE-AT-0026 Ilyonectria robusta PMI 751 \bigcirc Fusarium sp. FSSC 11

25k

-25k



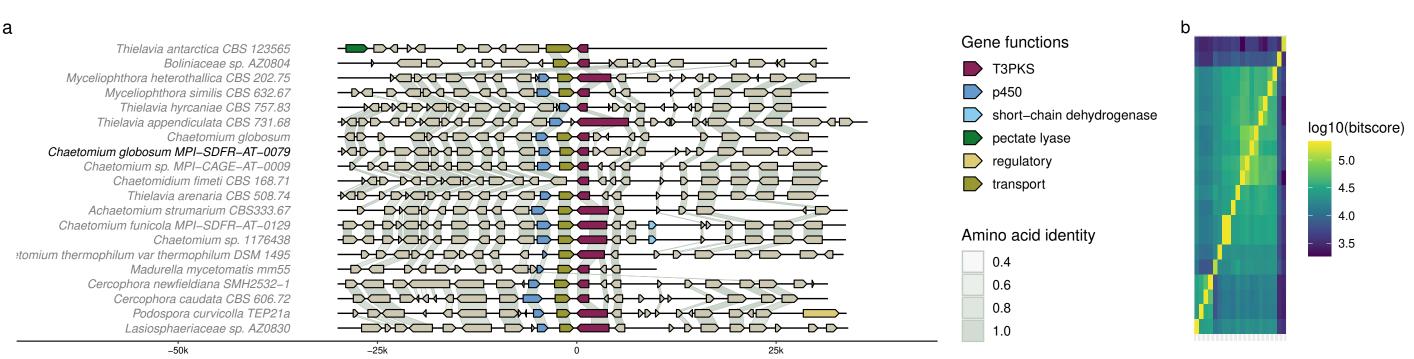


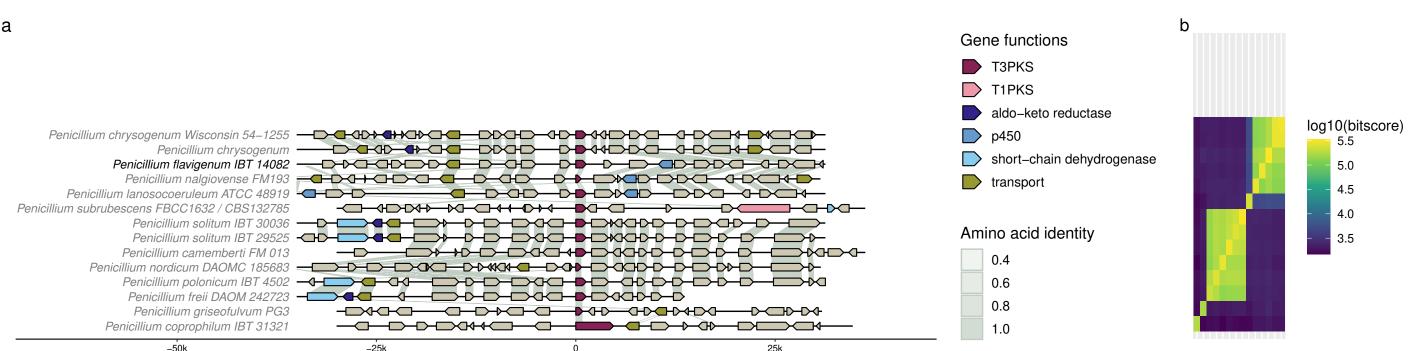


log10(bitscore)

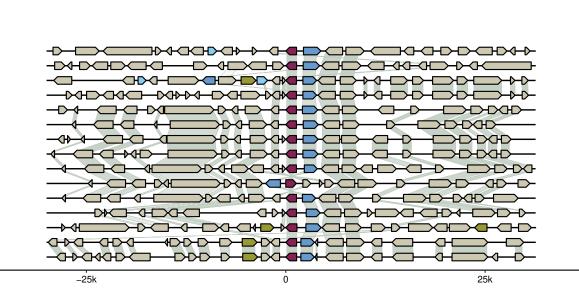
5.0

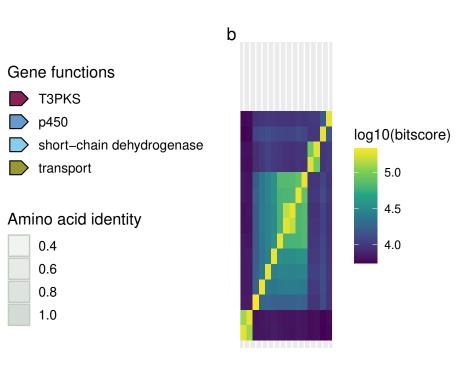
3.5

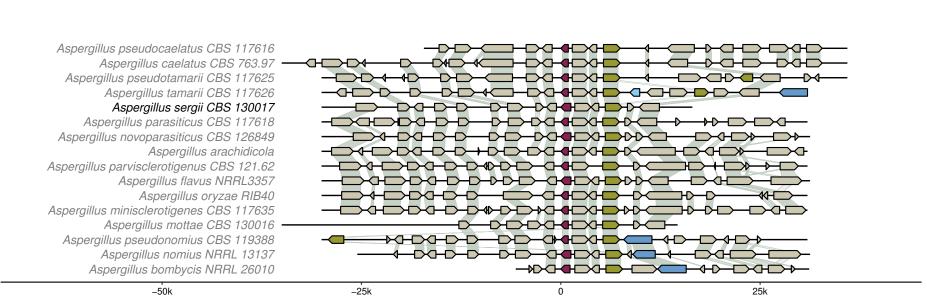


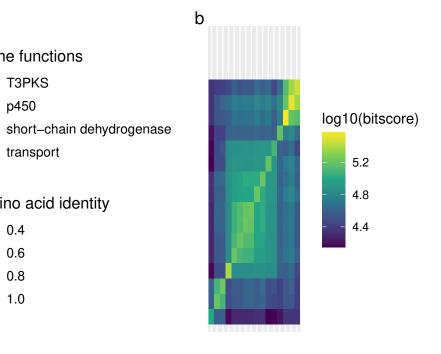












Gene functions T3PKS

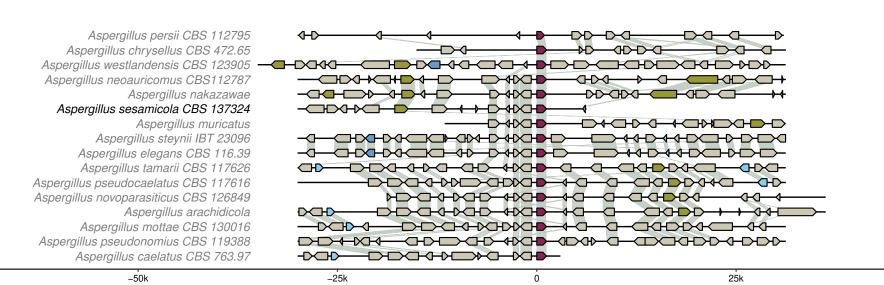
transport

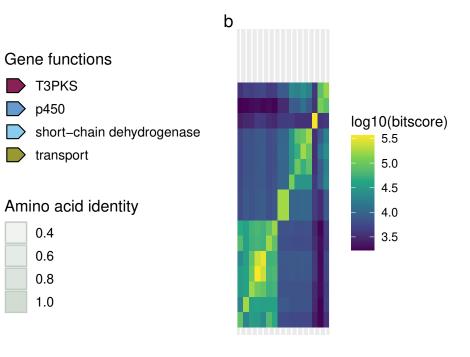
Amino acid identity

p450

0.4

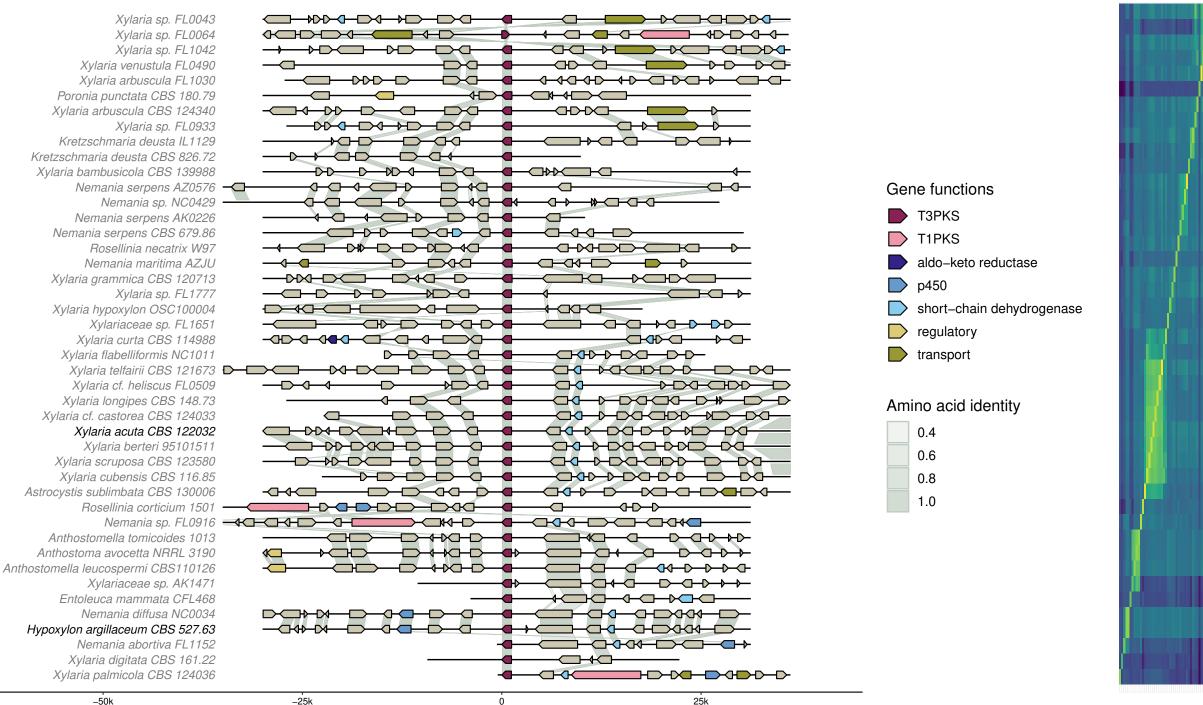
0.6





0.4

0.8



0

-25k

log10(bitscore)

5.5

5.0

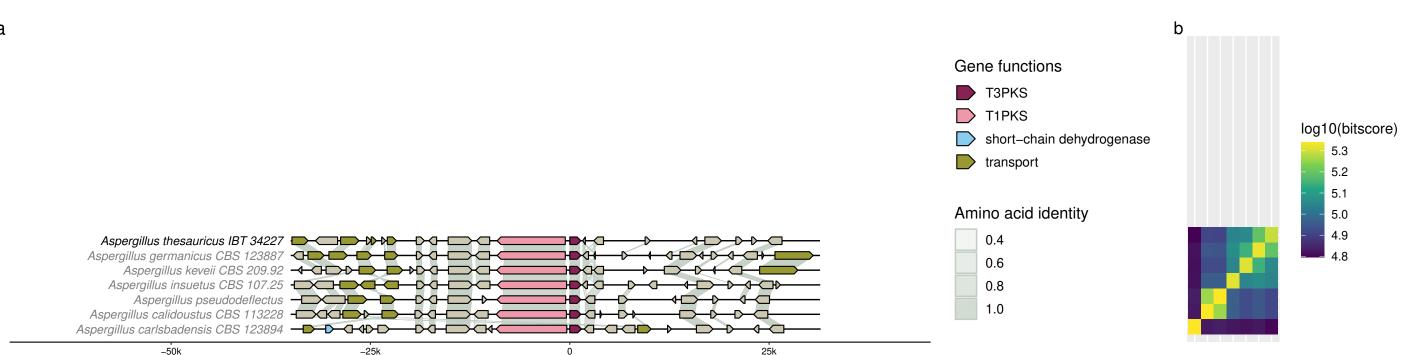
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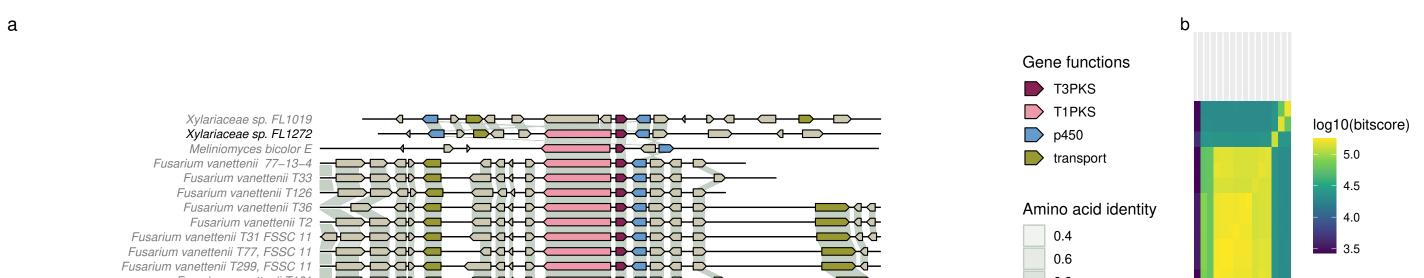
4.0

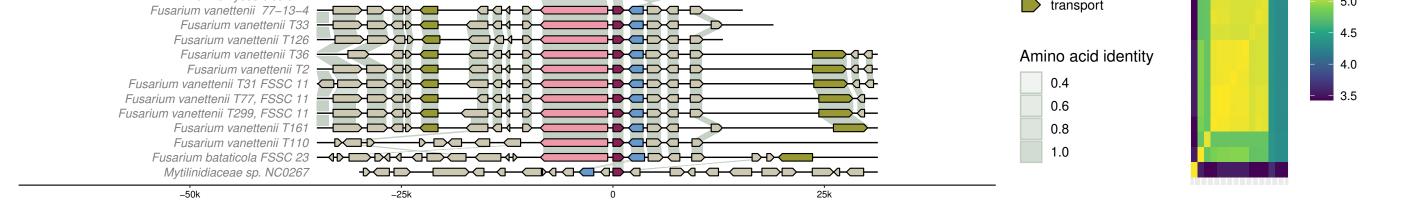
3.5

3.0

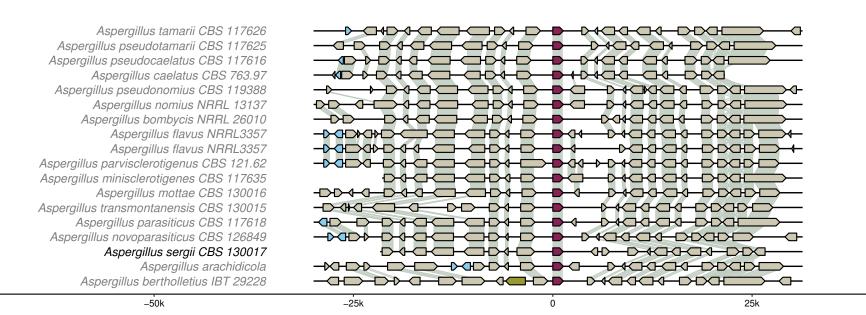
b

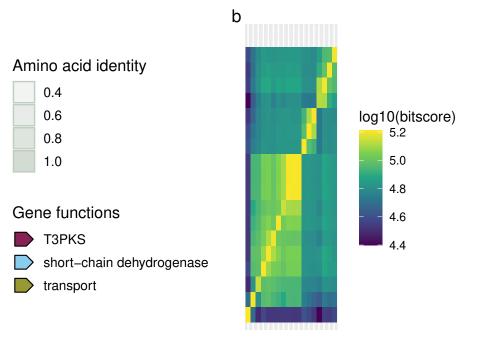


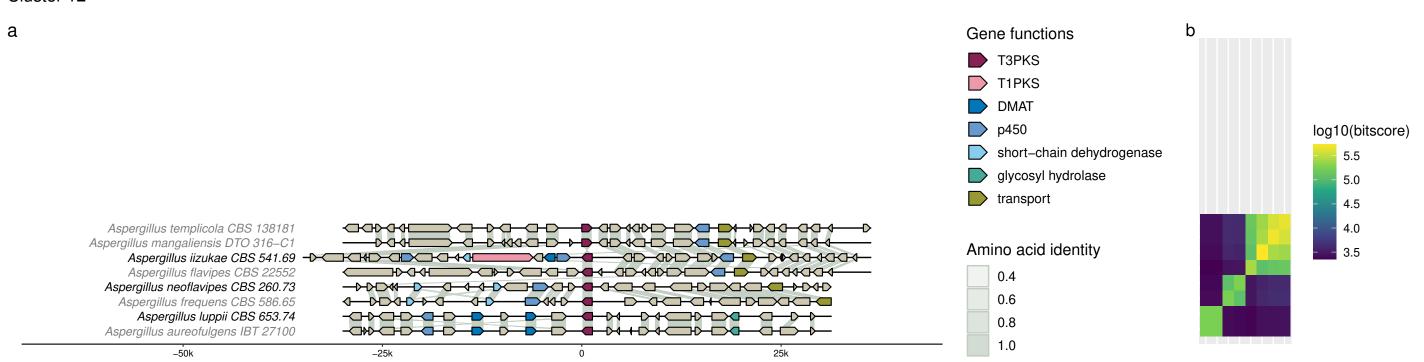




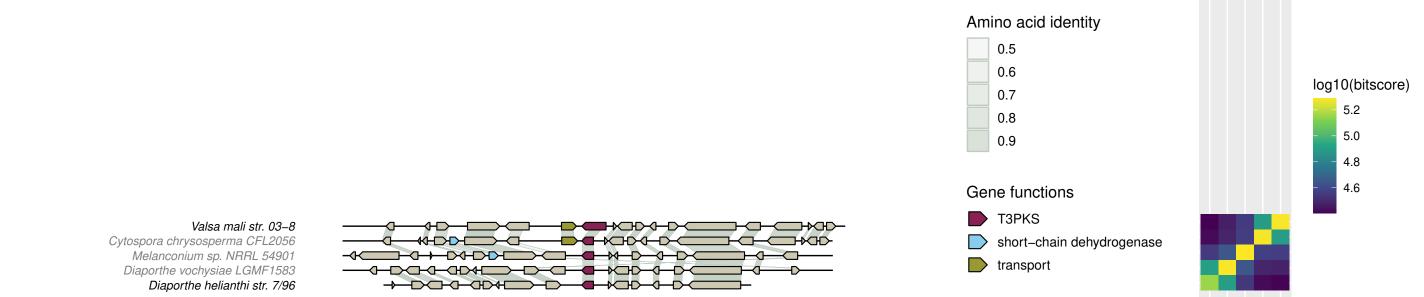
a



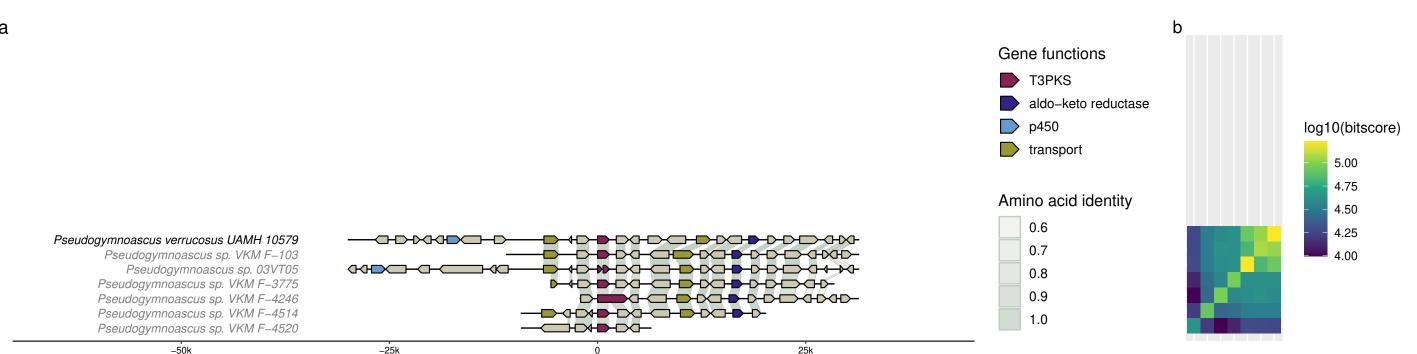


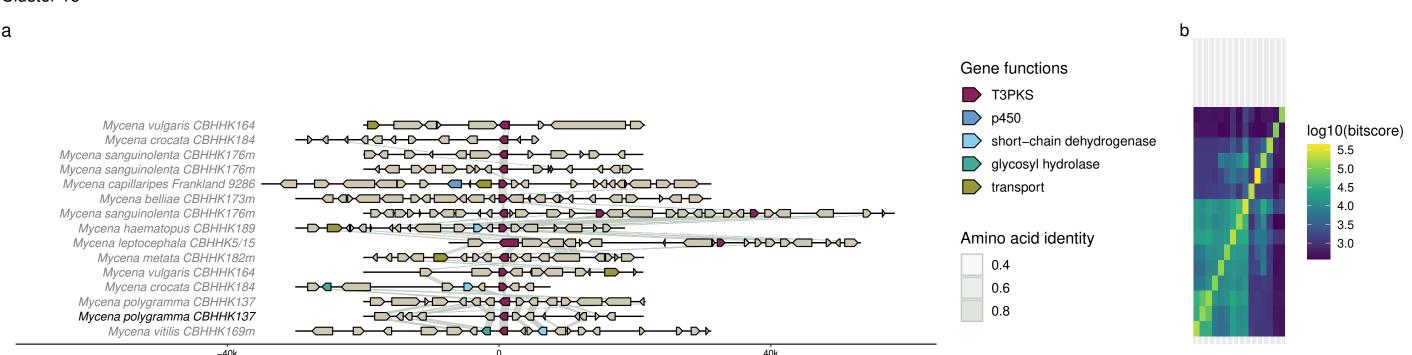


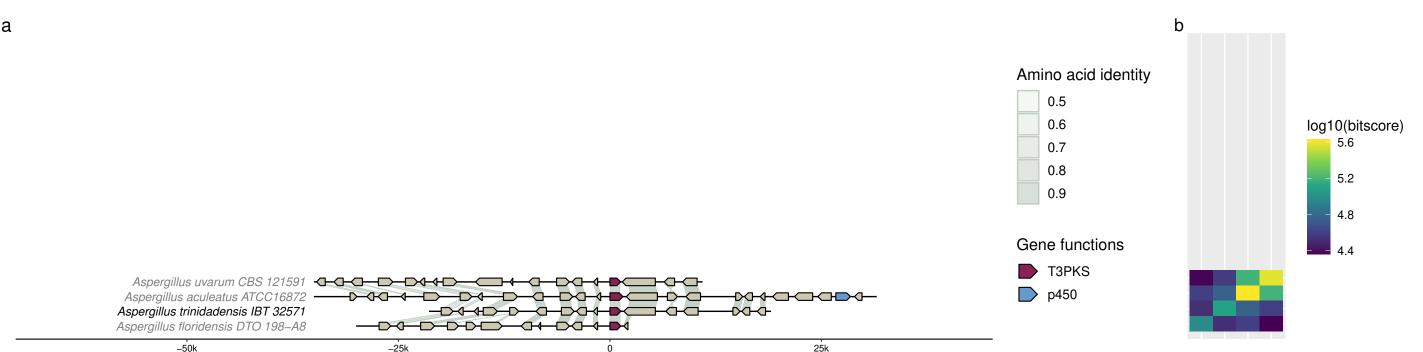
-25k

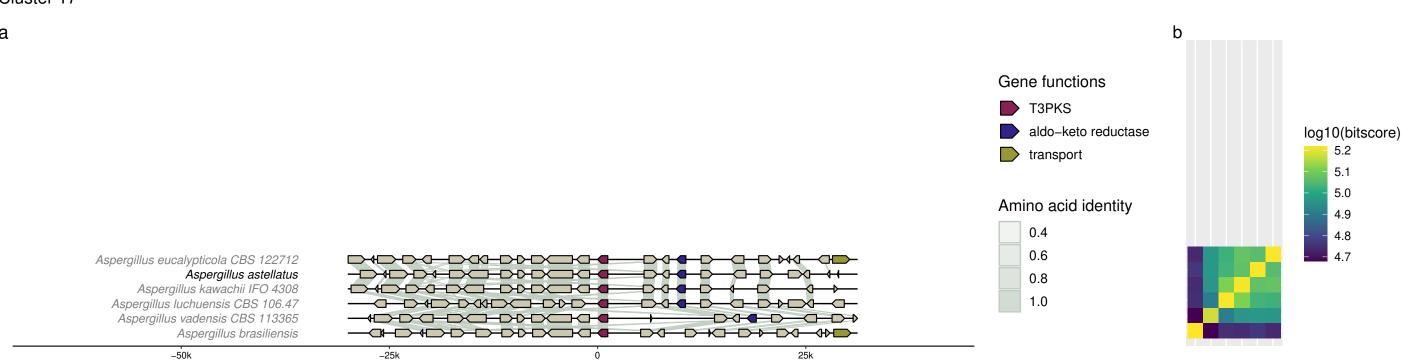


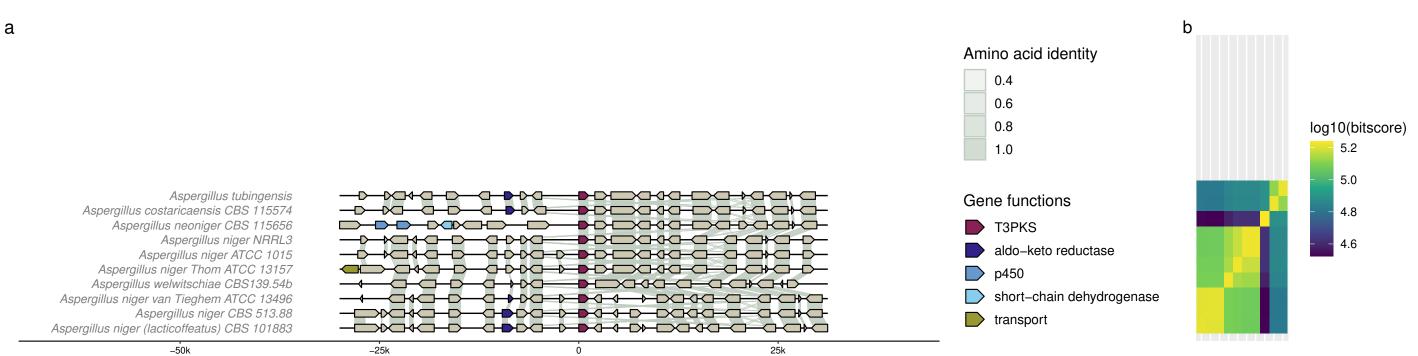
25k

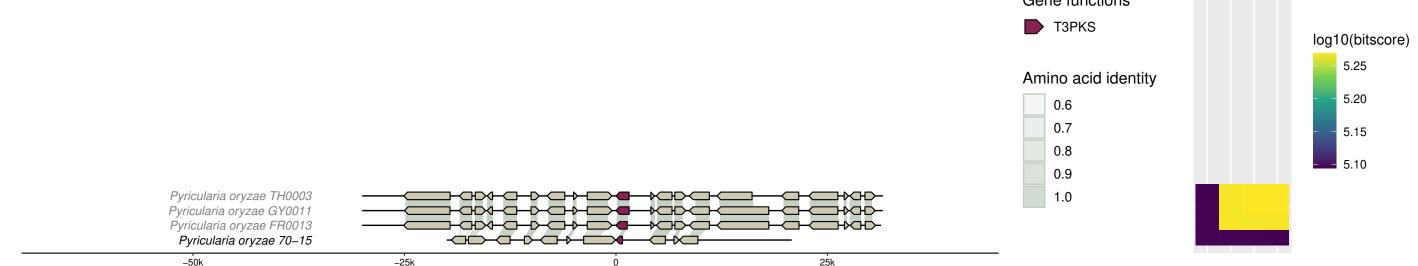


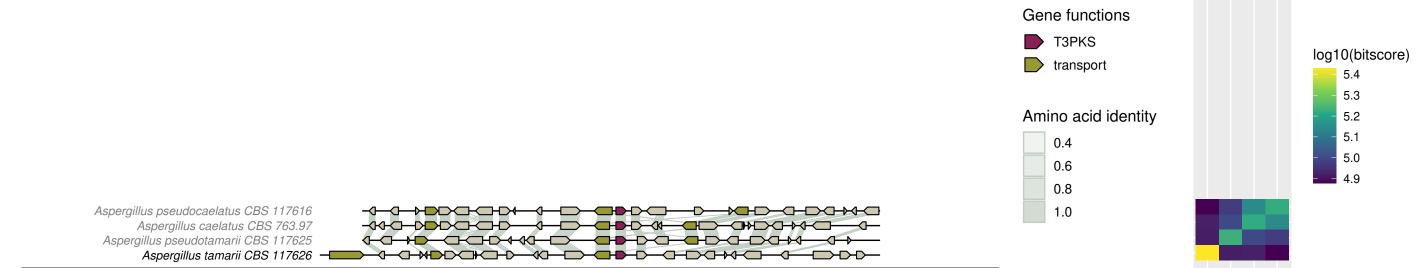








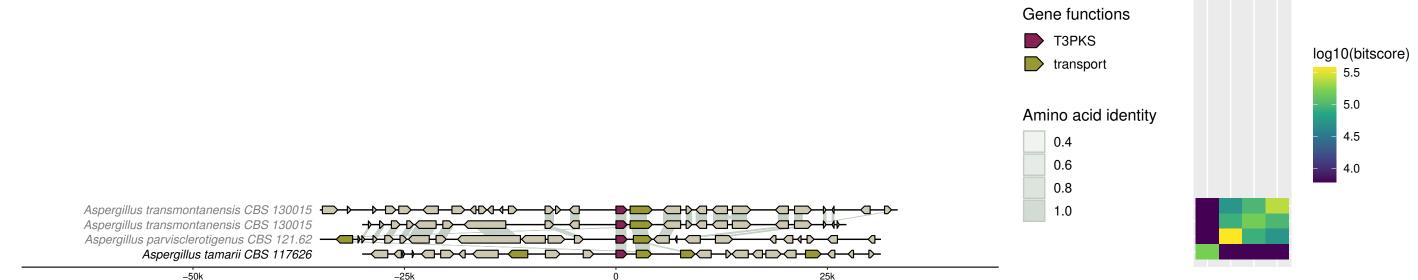




25k

-50k

-25k

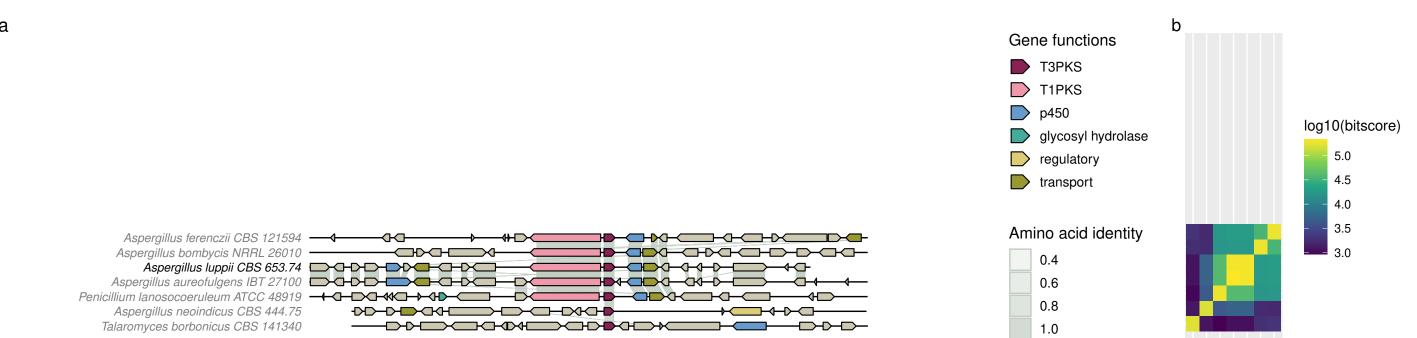


25k



-50k

-25k



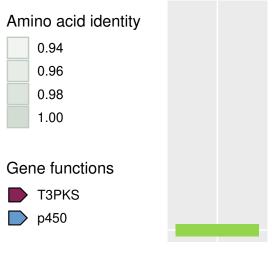
25k

Cluster 24

Aspergillus waksmanii IBT 31900 Aspergillus aureoluteus CBS 105.55

-25k

-50k



log10(bitscore)

5.5



25k

404

