

SUPPLEMENTARY MATERIAL

Table S1: Strains used in this study.

Strain	Description	Reference
A1160+	CEA10; $\Delta akuB^{ku80}::pyrG^{-}zeo$, $pyrG::pyrG^{Af}$; MAT1-1	[39]
$\Delta acuM$	A1160+; $acuM::hph$	[38]
$\Delta acuK$	A1160+; $acuK::hph$	[38]
$\Delta acuE$	A1160+; $acuE::hph$	This study
AfS77	ATCC4664; $\Delta akuA::loxP$	[41]
$\Delta sidA$	AfS77, $\Delta sidA::six$	[7]

Table S2: Primers used in this study.

Primer	5'-3' Sequence
oPC48	TAAATTGCATTTTGGATCTTGAAT
oPC49	TAGTTCTGTTACCGAGCCGGgttgatattgtcttttgcaa
Hph-fw	ccggctcggtaacagaactaACGGCGTAACCAAAAGTCAC
Hph-rv	gggagcatatcggtcagagcTCTTGACGACCGTTGATCTG
oPC50	GCTCTGAACGATATGCTCCCcctgcaagattgtgagcgtg
oPC51	ACTGGGATGTGGTGCGGGGCGGAG
oPC52	CATCGGAACAAGTCGGACAAG
oPC53	GAGATATTCAAGAAGTTGTAGAGGATG

Table S3: Primers used for the amplification of the digoxigenin-labelled probes for Northern- and Southern blot analysis.

Probe	Gene	5'-3' Sequence
<i>hapX</i>	AFUA_5G03920	TCG GTG GAA AGA AGT GCC CGA CGA TGT ATT GTT ATT GG
<i>mirB</i>	AFUA_3G03640	AAGCCGAGAAAAAGGGGG AACCCAGATGAAGCCCAG
<i>mirD</i>	AFUA_3G03440	TGATGCAGGGGAAATGCTGC TGATATAGGGAGAGGAGGTAAAGGCG
<i>sidA</i>	AFUA_2G07680	AACTACCTCCACCAGAAG GAACGGCAATGTTGTAAG
<i>sit1</i>	AFUA_7G06060	AGAACCAACCATGAACATGGCGATGCAC TTACGGATGATTTATCATCAATCTCCTCCG
<i>sidF</i>	AFUA_3G03400	CCT CAT CCC TAT CTC ACC AGT TTT GAG CGA GAG GGG
<i>ftrA</i>	AFUA_5G03800	ATGGCAAAGACGTATTTGC TCAGACAAGGGATGCTC
<i>facA</i>	AFUA_4G11080	TTCGTCGAAGGTCGCTTGAA CTCATCGACTCAGGAGCGAC
<i>acoA</i>	AFUA_6G12930	CAG CGT CCT CTC ACA TAC GCA AGA ACC GAT CAG ACC
<i>acuE</i>	AFUA_6G03540	CAATGCTCTGAATGCGGACG GGTGCTTGCGGAACCTTCTTG
<i>acuN</i>	AFUA_6G06770	TTGGCCCTGCTCTCATCAAG TGACGTCGGCCTTGTAGAAC
<i>acuD</i>	AFUA_4G13510	TCTGAAGCCGCAACACTCAT TCCAGTTGAAGGATGGCGAC
<i>acuF</i>	AFUA_6G07720	GTCTTCGACCCTATCAGCCG TTTAGCAGCTCAGAGGGCAC
<i>acuG</i>	AFUA_4G11310	ACATTGCTCTGCCATGCTCT TTCATGTTGGGGTGGGTCAG
3'NCR <i>acuE</i>	AFUA_6G03540	GCTCTGAACGATATGCTCCC ACTGGGATGTGGTGCGGGGCGGAG
5'NCR <i>fcyB</i>	AFUB_025700	CAGAGAATTGCCAAGCTGGT GTGGTGGGGATTGACTCAG
3' NCR <i>fcyB</i>	AFUB_025700	TGCGGTTTTTGGGTTTTATC AGACCGTTGTTTCATACCGC

Table S4: Absolute values of experiments presented in Figure 2. The TAFC content of the supernatant was normalized to g biomass, the ferricrocin content of the mycelia was normalized to 80 mg.

	Strain	Biomass (g) -Fe	Biomass (g) +Fe	TAFC (Abs/g)	Ferricrocin (Abs/80mg)
Gln	wt	0.079	0.335	0.570	0.103
		0.080	0.289	0.525	0.100
		0.077	0.336	0.558	0.099
	$\Delta acuM$	0.056	0.202	0.268	0.073
		0.064	0.174	0.234	0.071
		0.061	0.147	0.262	0.075
	$\Delta acuK$	0.071	0.25	0.324	0.064
		0.068	0.182	0.353	0.075
		0.070	0.183	0.386	0.072
NH ₄ ⁺	wt	0.077	0.155	0.545	0.110
		0.078	0.167	0.462	0.096
		0.086	0.158	0.523	0.117
	$\Delta acuM$	0.064	0.118	0.266	0.080
		0.069	0.139	0.232	0.076
		0.064	0.132	0.234	0.079
	$\Delta acuK$	0.064	0.121	0.278	0.071
		0.063	0.138	0.222	0.080
		0.067	0.136	0.228	0.073

Table S5: Absolute values of experiments presented in Figure 5. The TAFC content of the supernatant was normalized to g biomass, the ferricrocin content of the mycelia was normalized to 80 mg.

	Strain	Glucose				Fructose			
		Biomass (g) -Fe	Biomass (g) +Fe	TAFC (Abs/g)	Ferricrocin (Abs/80mg)	Biomass (g) -Fe	Biomass (g) +Fe	TAFC (Abs/g)	Ferricrocin (Abs/80mg)
-Acetate	wt	0.077	0.155	0.545	0.110	0.067	0.14	0.343	0.039
		0.078	0.167	0.462	0.096	0.066	0.142	0.333	0.041
		0.086	0.158	0.523	0.117	0.069	0.143	0.333	0.040
	<i>ΔacuM</i>	0.064	0.118	0.266	0.080	0.055	0.11	0.236	0.037
		0.069	0.139	0.232	0.076	0.057	0.114	0.228	0.033
		0.064	0.132	0.234	0.079	0.056	0.113	0.214	0.032
	<i>ΔacuK</i>	0.064	0.121	0.278	0.071	0.058	0.113	0.207	0.033
		0.063	0.138	0.222	0.080	0.058	0.112	0.224	0.034
		0.067	0.136	0.228	0.073	0.057	0.116	0.211	0.032
+Acetate	wt	0.075	0.162	0.627	0.269	0.068	0.141	0.397	0.064
		0.080	0.166	0.413	0.272	0.069	0.14	0.391	0.063
		0.083	0.16	0.470	0.267	0.068	0.144	0.412	0.060
	<i>ΔacuM</i>	0.069	0.134	0.275	0.231	0.058	0.134	0.293	0.068
		0.068	0.143	0.338	0.221	0.057	0.121	0.263	0.064
		0.072	0.14	0.292	0.223	0.059	0.13	0.271	0.066
	<i>ΔacuK</i>	0.063	0.142	0.317	0.209	0.057	0.126	0.281	0.063
		0.067	0.139	0.343	0.207	0.058	0.127	0.276	0.060
		0.069	0.146	0.290	0.207	0.062	0.128	0.290	0.066

Table S6: Absolute values of experiments presented in Figure 8. The TAFC content of the supernatant was normalized to g biomass, the ferricrocin content of the mycelia was normalized to 80 mg.

	Strain	Biomass (g) -Fe	Biomass (g) +Fe	TAFC (Abs/g)	Ferricrocin (Abs/80mg)
Glucose	wt	0.072	0.189	0.444	0.099
		0.069	0.192	0.435	0.090
		0.069	0.193	0.435	0.097
	$\Delta acuE$	0.073	0.196	0.438	0.099
		0.071	0.192	0.465	0.098
		0.072	0.195	0.417	0.094
Fructose	wt	0.072	0.152	0.389	0.065
		0.064	0.13	0.391	0.060
		0.069	0.145	0.406	0.061
	$\Delta acuE$	0.069	0.141	0.377	0.061
		0.069	0.126	0.406	0.059
		0.068	0.135	0.397	0.064

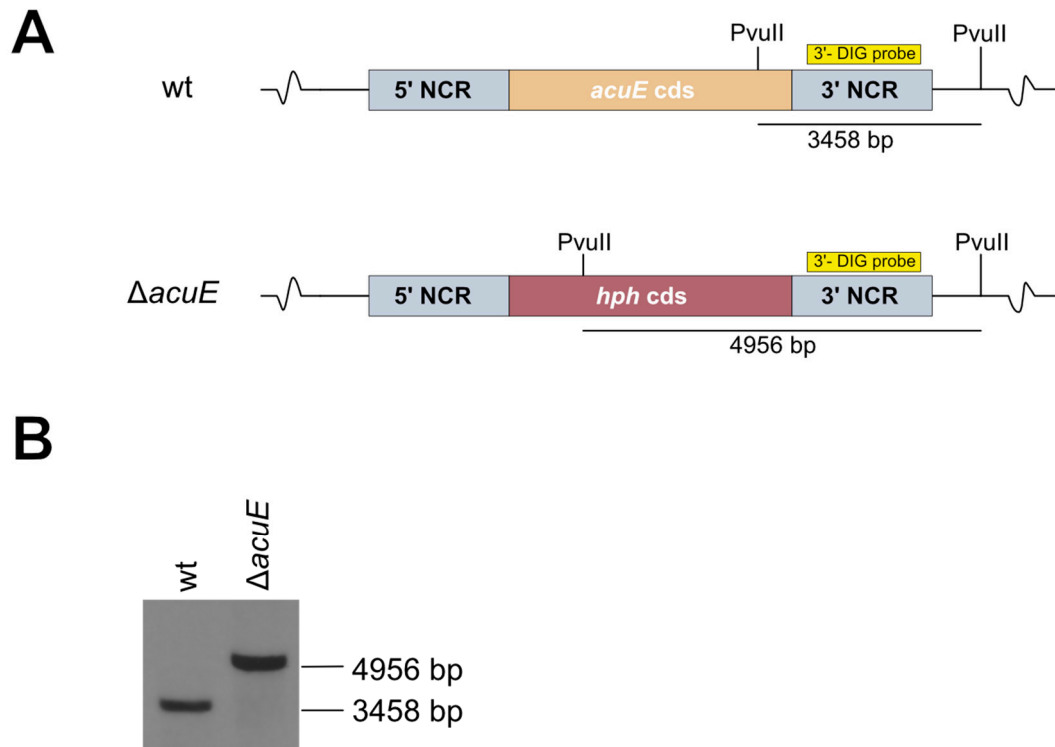


Figure S1: Scheme for deletion of *acuE* in *A. fumigatus* (A) and Southern blot analysis verification (B). Digestion with the restriction enzyme *PvuII* results in 3458-bp fragment in wt strain and a 4956-bp fragment in $\Delta acuE$. The hybridization probe labelled in A was generated from gDNA using primers PC50/PC51. NCR, non-coding region.

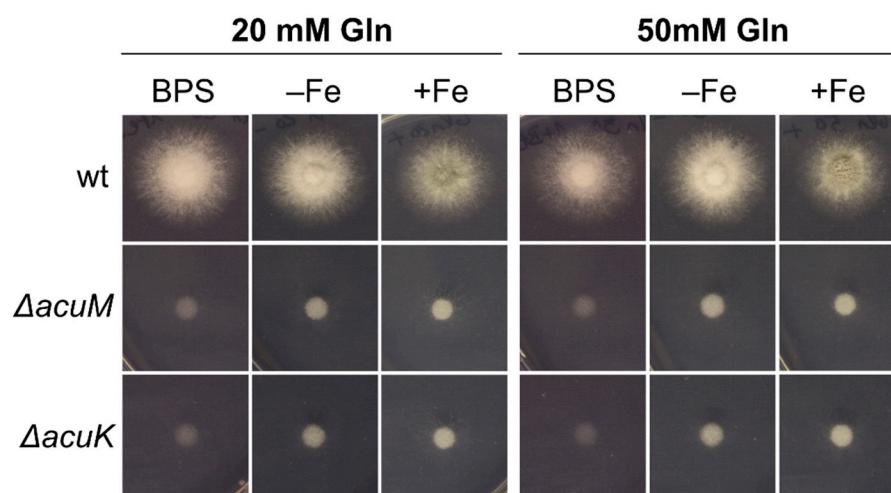


Figure S2: Mutants lacking either *AcuM* or *AcuK* are able to slightly use Gln as a carbon source. *Aspergillus fumigatus* wt and $\Delta acuM$ and $\Delta acuK$ mutant strains were point-inoculated using 10^4 spores on minimal medium using either Glc or acetate as carbon sources and Gln or NH_4^+ as nitrogen sources. Experimental details are described in Figure 1.

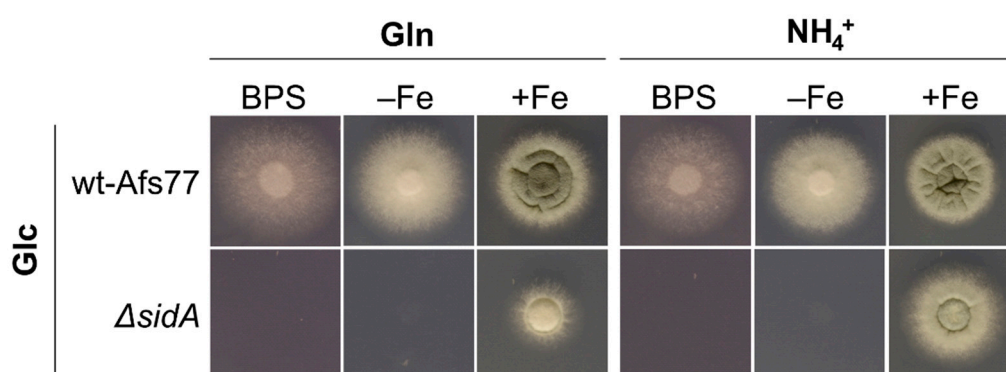


Figure S3: Siderophore-lacking $\Delta sidA$ mutant displays a growth defect under both iron starvation (-Fe) and in the presence of BPS. *Aspergillus fumigatus* wt and $\Delta sidA$ mutant strains were point-inoculated using 10^4 spores on minimal medium using either Glc or acetate as carbon sources and Gln or NH_4^+ as nitrogen sources. Experimental details are described in Figure 1.

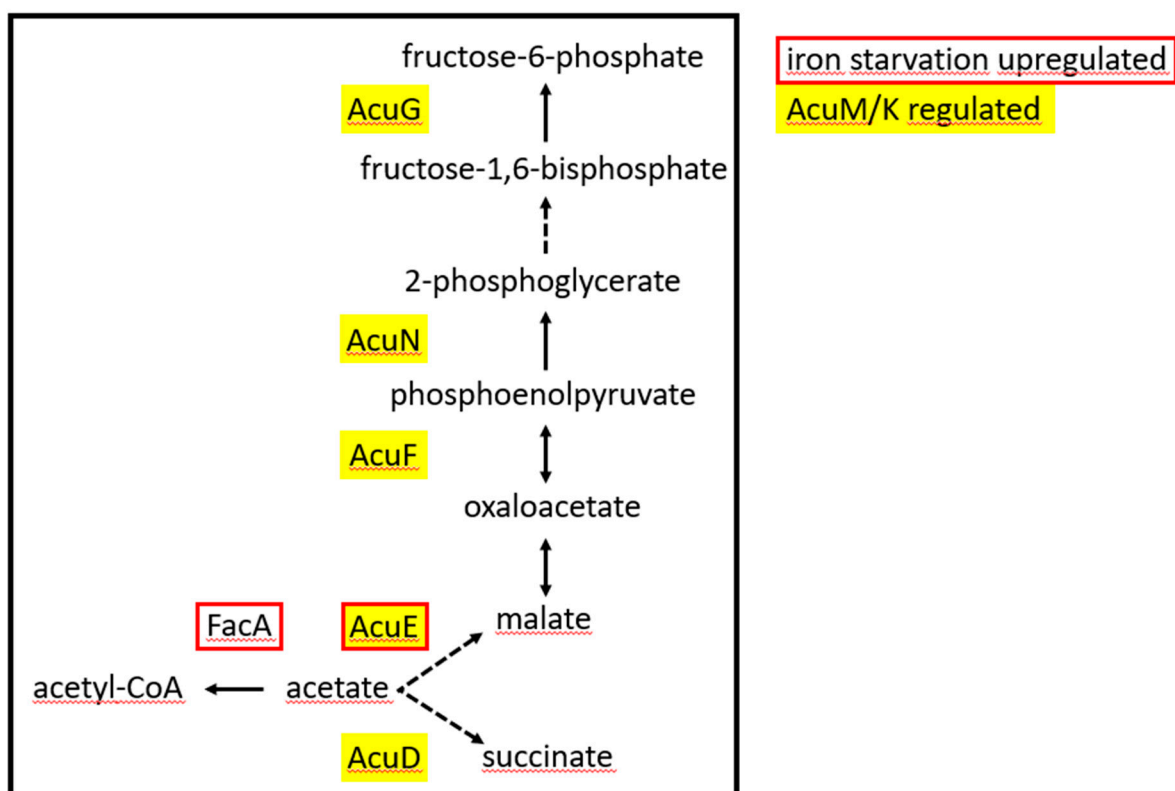


Figure S4: Metabolic interaction of the enzymes encoded by the genes analyzed in Figure 6. Upregulation of the encoding gene during iron limitation compared to iron sufficiency is marked by boxing in red; activation by AcuM and AcuK is marked in yellow