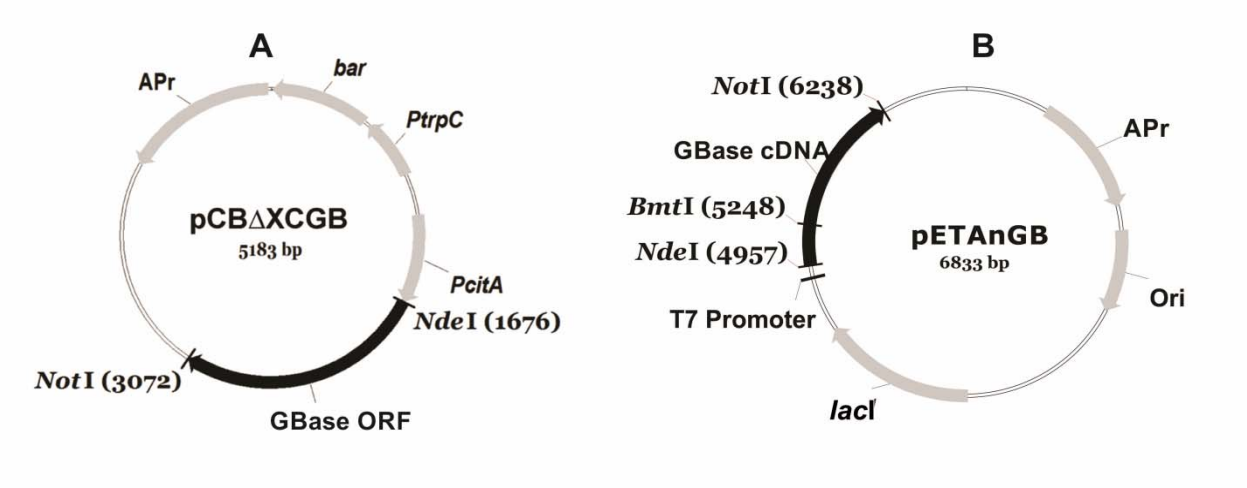

FIG S1 Plasmids for GBase expression. (A) Expression of GBase ORF in *A. niger* is driven by citric acid synthase (*cit*A) promoter. (B) GBase cDNA expression construct in pET43.1b.

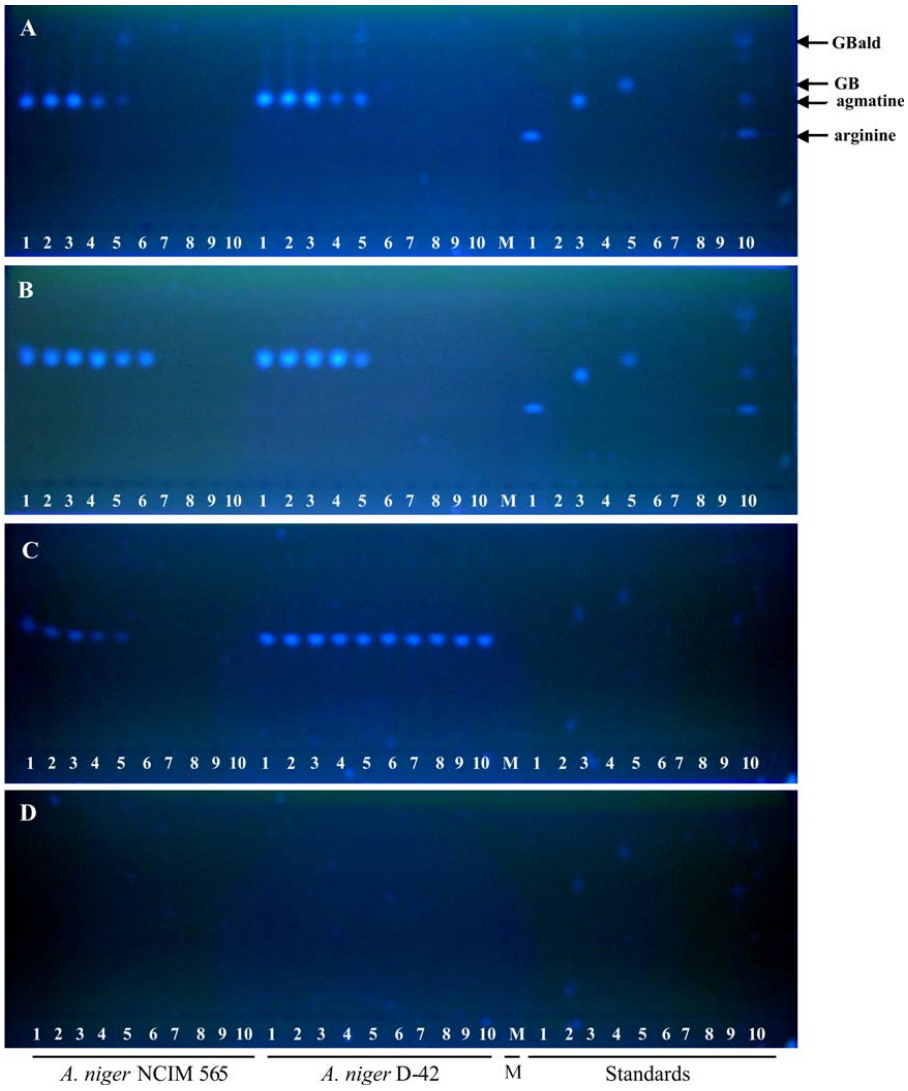

FIG S2 Detection of guanidinium compounds on TLC after fluorescence derivatization. *A. niger* strains (WT and D-42 strains) were grown in liquid culture with agmatine (panel A), GB (panel B), L-arginine (panel C) and NH_4NO_3 (panel D) as sole nitrogen source. Aliquots of these culture media (2.0 µl each) were derivatized with benzoin before spotting on the TLC plates, developed in solvent system II and visualized under UV light. Data for samples after every 10 h of growth (Lanes 1-10) are shown. Culture medium with no nitrogen (Lane M), the standards (L-arginine, ornithine, agmatine, putrescine, GB, GABA, urea, citrulline, SSA and GBald; Lanes 1-10) were also included.

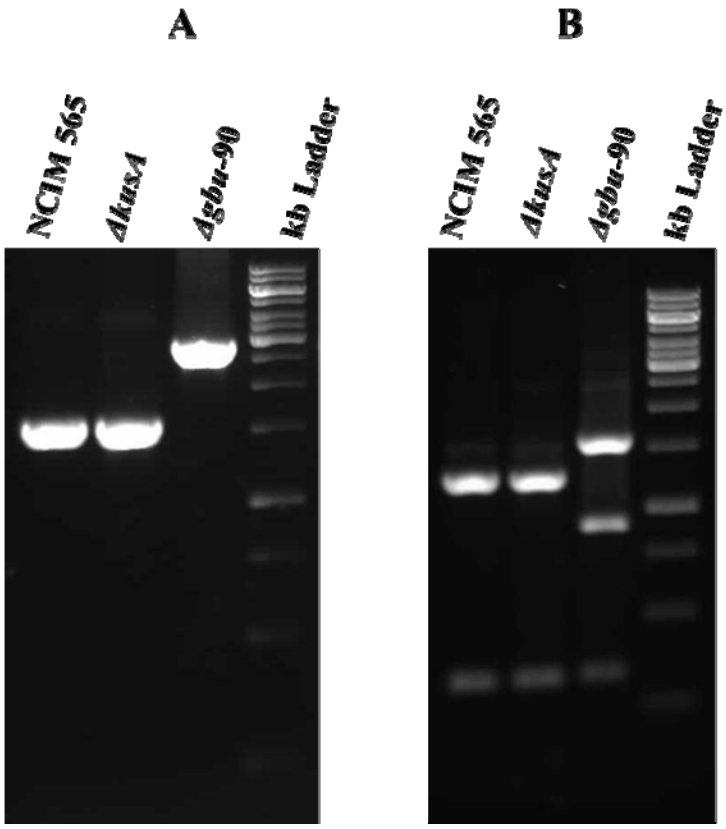

FIG S3 Genomic PCR and characterization of *A. nigerΔgbu*-90 strain

(A) Agarose gel showing genomic PCR products of *A. niger* strains NCIM-565 (1.6 kb), *ΔkusA* (1.6 kb) and *Δgbu*-90 (2.8 kb).

(B) *Eco*RV digestion patterns of the respective PCR products: NCIM 565 and *ΔkusA* (two fragments of 1.3 kb and 0.3 kb), *Δgbu*-90 (three fragments of 1.6 kb, 0.9 kb and 0.3 kb).

Table S1

Enzyme activities in *Aspergillus nidulans* mycelia

Ureohydrolase			
Nitrogen source	Activity (U mg^{-1} protein)[a]		
	4-Guanidinobutyrase	Arginase	Agmatinase
L-Arginine	ND	11.28	ND
Agmatine	0.33	0.28	ND
GB	0.15	0.43	ND
NH_4NO_3	ND	0.40	ND

[a] Activity data in crude extract is representative of two independent experiments (in duplicates) and the variation was less than 10%; 'ND' denotes not detected.