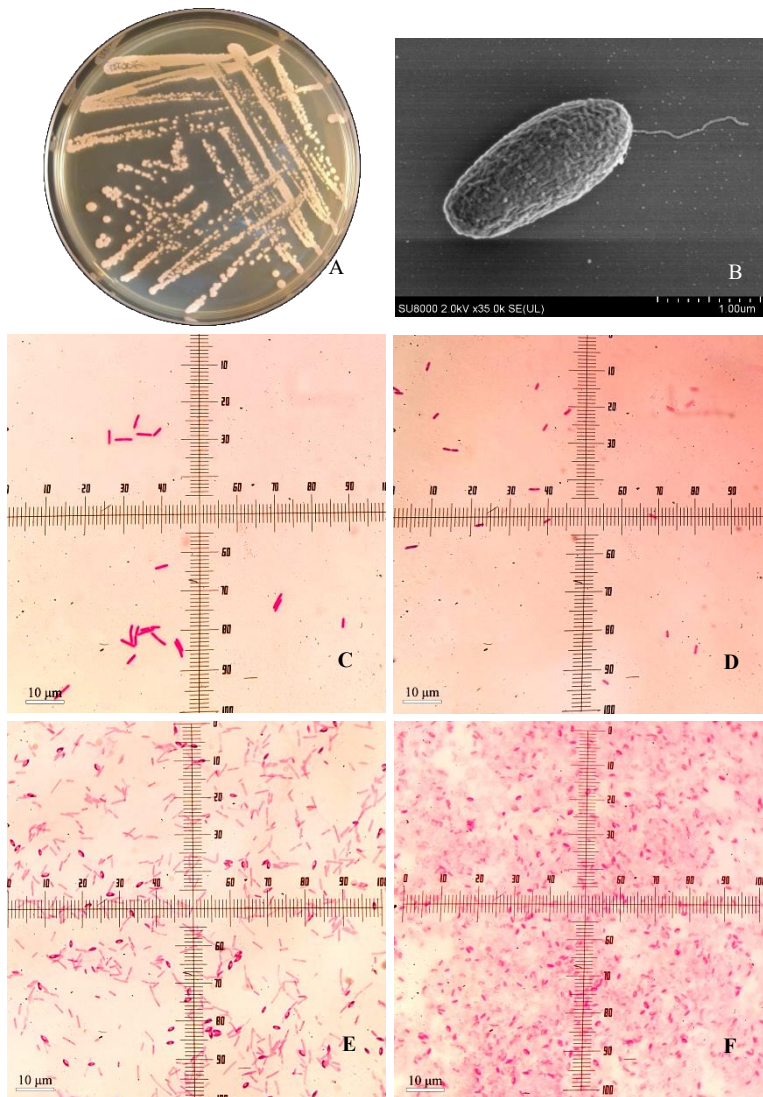
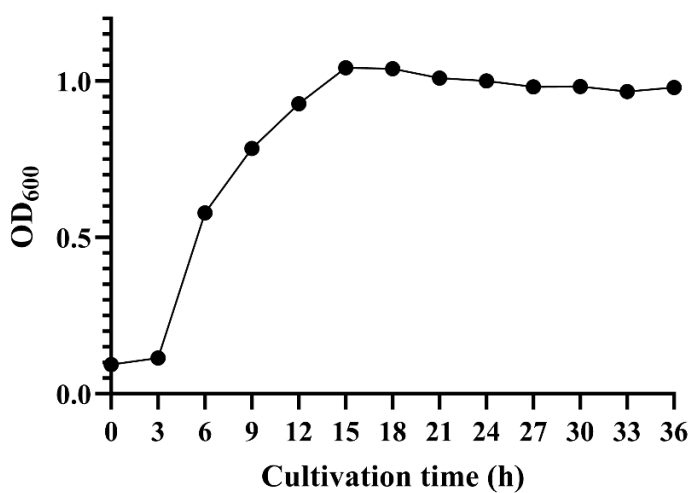




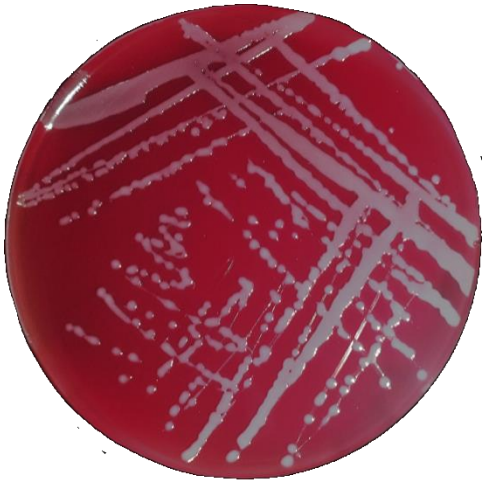
Supplementary Fig. 1. Morphology of *Brevibacillus laterosporus* XJ-24-3 isolate. (A) Colony characteristics of the XJ-24-3 isolate; (B) Spore morphology of XJ-24-3 under scanning electron microscope.; (C–F) Gram staining of the XJ-24-3 strain after 8, 16, 24 and 32 h of cultivation, respectively

XJ-24-3 growth curve



OD₆₀₀ – optical density at 600 nm

Supplementary Fig. 2. Growth curve of *B. laterosporus* XJ-24-3



Supplementary Fig. 3. Haemolytic test of *Brevibacillus laterosporus* XJ-24-3 isolate on 5% sheep blood

[illegible][illegible]

Ulbactin F biosynthetic gene cluster

50001 10,0001 15,0001 20,0001

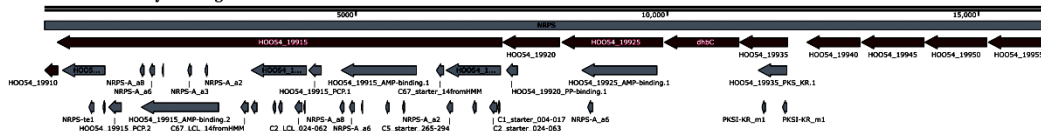
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BGP74_RS13413_POR1 NBP5_A_6 NBP5_A_3 Cys7 BGP74_RS13405_CMT1 BGP74_RS13430_POR2 BGP74_RS13430_CMT2 BGP74_RS13430_POR3 NBP5_A_8 NBP5_A_6 NBP5_A_3 Cys7 Cys8 Cys9 BGP74_RS13430_ABP-binding-1 BGP74_RS13440

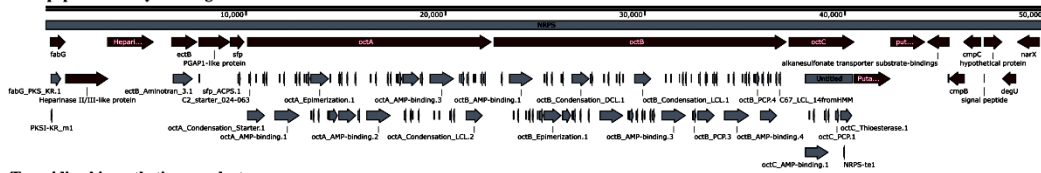
[illegible][illegible]

Genomic map of the *Bog* operon in *Arabidopsis thaliana*. The map shows the arrangement of genes and their corresponding protein products. The genes are labeled as *BogA*, *BogB*, *BogC*, *BogD*, *BogE*, *BogF*, *BogG*, *BogH*, *BogI*, *BogJ*, *BogK*, *BogL*, *BogM*, *BogN*, *BogO*, *BogP*, *BogQ*, *BogR*, and *BogS*. The map also includes gene IDs and protein names, such as *ATY37589.1_AMP-binding.1*, *ATY37589.1_Epimerization.1*, *PCP_mE*, *ATY37590.1_Condensation_LCL.2*, *ATY37591.1_AMP-binding.2*, *ATY37592.1_AMP-binding.2*, *ATY37596.1_AMP-binding.1*, *ATY37588.1_AMP-binding.1*, *ATY37589.1_AMP-binding.2*, *NRPS-A_s6*, *ATY37590.1_AMP-binding.4*, *ATY37591.1_Condensation_LCL.2*, *ATY37591.1_Epimerization.1*, *NRPS-A_s8*, *ATY37596.1_PCR.1*, *NRPS-ta1*, *NRPS-A_s2*, *NRPS-A_s8*, *NRPS-A_s1*, *ATY37590.1_AMP-binding.1*, *ATY37590.1_AMP-binding.2*, *PCP_mE*, *C3_LCL_132-143*, and *NRPS-A_s6*.

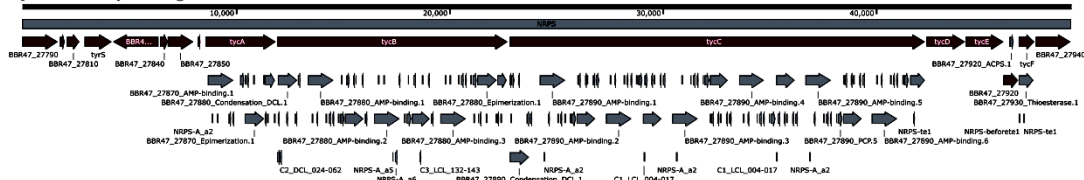
Basiliskamide A biosynthetic gene cluster



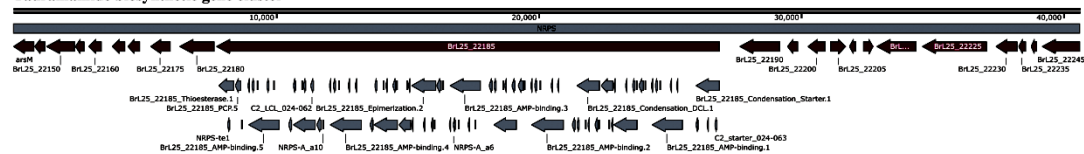
Octapeptin C4 biosynthetic gene cluster



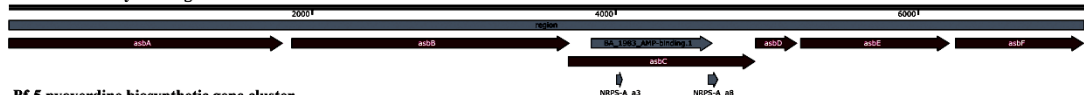
Tyrodine biosynthetic gene cluster



Tauramide biosynthetic gene cluster



Petrobactin biosynthetic gene cluster



Pf-5 pyoverdine biosynthetic gene cluster

