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**Figure S1.** The metabolism pathway for riboflavin. The box with green color indicates the pathway presented in *Cruznema* *velatum.*



**Figure S2.** The metabolism pathway for lipoic acid. The box with green color indicates the pathway presented in *Cruznema* *velatum.*

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**Figure S3.** The metabolism pathway for vitamin B6. The box with green color indicates the pathway presented in *Cruznema* *velatum.*

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**Figure S4.** The metabolism pathway for thiamine. The box with green color indicates the pathway presented in *Cruznema* *velatum.*



**Figure S5.** The metabolism pathway for pantothenate and CoA. The box with green color indicates the pathway presented in *Cruznema* *velatum.*

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**Figure S6.** The metabolism pathway for biotin. The box with green color indicates the pathway presented in *Cruznema* *velatum.*

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**Figure S7.** The metabolism pathway for folate. The box with green color indicates the pathway presented in *Cruznema* *velatum.*