

Outlineoffungi.org - Note 1469 *Saccharomycodales*

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Saccharomycodales M. Groenew., Hittinger, Opulente & A. Rokas

Saccharomycodales was established to accommodate *Saccharomycodaceae* Kudryavtsev as the type family based on morphological characteristics, physiological features, and a concatenation single-model (LG+G4) approach on a data matrix of 1672 taxa (1644 fungi and 28 outgroups) and 290 BUSCO genes (Groenewald et al. 2023). The type genus and type species are *Saccharomyces* E.C. Hansen and *Saccharomyces ludwigii* (E.C. Hansen) E.C. Hansen, respectively (Groenewald et al. 2023). The diagnosis of *Saccharomycodales* relies on the presence of order-specific protein families OG0011566, OG0011567, OG0011580, OG0011587, and OG0011592 and phylogenetic analyses using DNA sequences encoding mtSSU rDNA, ITS, LSU rDNA, EF-1 α , and Cox2, as described by Kurtzman et al. (2011). Key characteristics of *Saccharomycodales* include bipolar budding, non-assimilation of nitrate, a negative diazonium blue B reaction, and the presence of coenzyme CoQ-6 (Groenewald et al., 2023). *Saccharomycodales* comprises *Saccharomycodaceae*, which includes the genera *Hanseniaspora* (=Kloeckera) and *Saccharomyces*. (Groenewald et al. 2023).

References

- Groenewald M, Hittinger CT, Bensch K, Opulente DA, et al. 2023 – A genome-informed higher rank classification of the biotechnologically important fungal subphylum *Saccharomycotina*. *Studies in Mycology* 105(1), 1–22.
- Kurtzman C, Fell JW, Boekhout T. 2011 – *The Yeasts - A Taxonomic Study*, 2, 5th ed. Elsevier, Amsterdam.

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