



Alkalihalobacillus clausii

(Redirected from [Bacillus clausii](#))

Alkalihalobacillus clausii or its old scientific name **Bacillus clausii** is a rod-shaped, motile, and spore-forming bacterium that lives in the soil but is also a natural microflora of the mammalian gastrointestinal tract. It is classified as probiotic microorganism that maintains a symbiotic relationship with the host organism.^[1] It is currently being studied in relation to respiratory infections^[2] and some gastrointestinal disorders.^[3] *Bacillus clausii* has been found to produce antimicrobial substances that are active against gram-positive bacteria including *Staphylococcus aureus*, *Enterococcus faecium* and *Clostridium difficile*.^[1] It is sold as an anti-diarrhoea and under the brand name Erceflora by Sanofi.^[4]

This species has been recently transferred into the genus *Alkalihalobacillus*.^[5] The correct nomenclature is thus *Alkalihalobacillus clausii*.

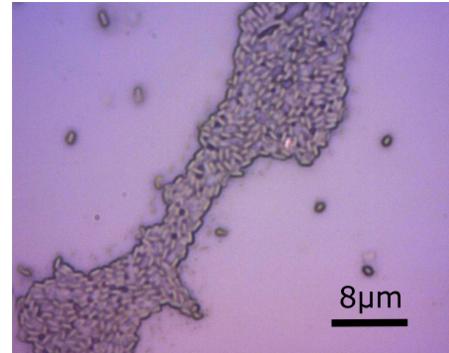
Genome structure

Alkalihalobacillus clausii has a relatively small genome that contains 4.30 Mbp with 4,108 protein coding genes.^[1]

References

1. Urdaci, MC; Bressollier, P; Pinchuk, I (Jul 2004). "Bacillus clausii probiotic strains: antimicrobial and immunomodulatory activities". *Journal of Clinical Gastroenterology*. **38** (6 Suppl): S86–90. doi:10.1097/01.mcg.0000128925.06662.69 (<https://doi.org/10.1097/01.mcg.0000128925.06662.69>). PMID 15220667 (<https://pubmed.ncbi.nlm.nih.gov/15220667/>). S2CID 8725033 (<https://api.semanticscholar.org/CorpusID:8725033>).
2. Marseglia GL, Tosca M, Cirillo I, et al. (March 2007). "Efficacy of *Bacillus clausii* spores in the prevention of recurrent respiratory infections in children: a pilot study" (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1936284>). *Therapeutics and Clinical Risk Management*. **3** (1): 13–7. doi:10.2147/tcrm.2007.3.1.13 (<https://doi.org/10.2147/tcrm.2007.3.1.13>). PMC 1936284 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1936284>). PMID 18360611 (<https://pubmed.ncbi.nlm.nih.gov/18360611/>).
3. Gabrielli M, Lauritano EC, Scarpellini E, et al. (May 2009). "Bacillus clausii as a treatment of small intestinal bacterial overgrowth". *The American Journal of Gastroenterology*. **104** (5): 1327–8. doi:10.1038/ajg.2009.91 (<https://doi.org/10.1038/ajg.2009.91>). PMID 19352343 (<https://pubmed.ncbi.nlm.nih.gov/19352343/>).

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A. clausii from Enterogermina on a glass slide

Scientific classification

Domain:	Bacteria
Phylum:	Bacillota
Class:	Bacilli
Order:	Bacillales
Family:	Bacillaceae
Genus:	Alkalihalobacillus
Species:	A. clausii

Binomial name

Alkalihalobacillus clausii

Nielsen et al. 1995

- d.ncbi.nlm.nih.gov/19352343). S2CID 7920293 (<https://api.semanticscholar.org/CorpusID:7920293>).
4. "Bacillus clausii" (<https://www.mims.com/philippines/drug/info/bacillus%20clausii?mtype=generic>). *Monthly Index of Medical Specialities*. Retrieved 8 April 2022.
5. Patel, Sudip; Gupta, Radhey S. (2020-01-01). "A phylogenomic and comparative genomic framework for resolving the polyphyly of the genus *Bacillus*: Proposal for six new genera of *Bacillus* species, *Peribacillus* gen. nov., *Cytobacillus* gen. nov., *Mesobacillus* gen. nov., *Neobacillus* gen. nov., *Metabacillus* gen. nov. and *Alkalihalobacillus* gen. nov" (<https://doi.org/10.1099/ijsem.0.003775>). *International Journal of Systematic and Evolutionary Microbiology*. 70 (1): 406–438. doi:10.1099/ijsem.0.003775 (<https://doi.org/10.1099/ijsem.0.003775>). ISSN 1466-5026 (<https://www.worldcat.org/issn/1466-5026>). PMID 31617837 (<https://pubmed.ncbi.nlm.nih.gov/31617837>).

External links

- [Bacillus clausii](http://microbewiki.kenyon.edu/index.php/Bacillus_clausii) (http://microbewiki.kenyon.edu/index.php/Bacillus_clausii)
 - [Type strain of *Bacillus clausii* at BacDive - the Bacterial Diversity Metadatabase](http://bacdive.dsmz.de/index.php?search=1127&submit=Search) (<http://bacdive.dsmz.de/index.php?search=1127&submit=Search>)
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