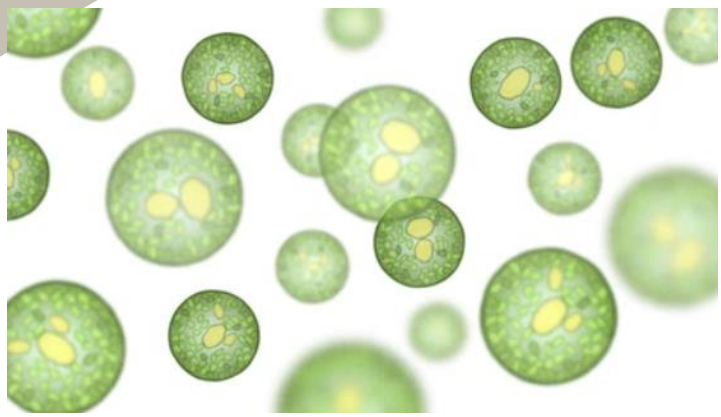
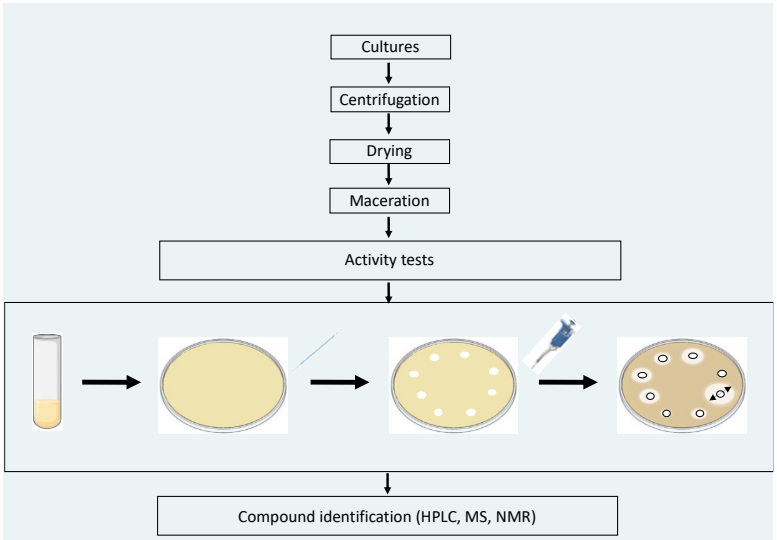
New Antibacterial Compound Extracted from Microalgae





KEY ACHIEVEMENTS

- Chlorophyll derivative isolated from green microalgae
- Obtained by maceration with polar organic solvents
- Active against Gram-positive bacteria of ESKAPE group.
- Tested against *S. aureus* ATCC 25923 and Methicillin-resistant *S. aureus* (MRSA) ATCC 43300), *E. faecium* (ATCC 19434), and *B. subtilis* 168

KEY COMPETITIVE ADVANTAGES

- Compound active in the absence of light at µg/mL
- Soluble in water and polar solvents
- Easily purified

UPCOMING CHALLENGES

- Compound stabilisation/toxicity *in vivo* and *in vitro*
- Mode of action of compound
- Expand the activity to Gram-negative bacteria
- Oral bioavailability to be tested. Similar compounds are used as dietary supplement.
- Toxicity to be tested. Similar compounds are not toxic for topical applications

CHARACTERISTICS

- Bacteriostatic or non-lytic bactericide on *S. aureus*
- Penetration inside bacterial cells
- Non-hemolytic *in vitro*
- Possible MoA: increased ROS production

PARTNERSHIP SOUGHT

- Research collaboration and/or licensing
- Looking for a partner in need of a new natural origin antibacterial agent and that could run more tests on the compound

INTELLECTUAL PROPERTY

- Patent pending WO2024023259A1, covering the compound structure, method of purification, and application
- Microalgae strains deposited in BEA (Banco Español de Algas)

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