greengredients™

ANTIMICROBIAL ACTIVITY

GREENQUAT® BT presents an antimicrobial effect against gram + (Escherichia coli - Pseudomonas aeruginosa) and gram – (Staphylococcus aureus -Staphylococcus epidermidis) bacteria, yeasts and moulds (Candida albicans - Aspergillus brasiliensis).

The antimicrobial activity has been evaluated with the most reliable and widely used techniques, the Minimum Inhibitory Concentration (MIC) and the Minimum Bactericidal Concentration (MBC) methods.

MIC is a reproducible technique to test the bacterial sensitivity of a formulation by identifying the lowest concentration that inhibits microbial growth (bacteriostatic action); instead, the MBC is the lowest concentration able to induce a 99.9% reduction of the microbial load (bactericidal action).

GREENQUAT® BT presents both bacteriostatic and bactericidal activity against the reference strains.

In particular, it is effective against Staphylococcus aureus, Staphylococcus epidermidis and Escherichia coli (MIC 11.1% and MBC at 33.3 %). The MIC and MBC effective concentration against Candida albicans and Aspergillus brasiliensis is equal to 11.1%.

GREENQUAT® BT results to have the best efficacy on Pseudomonas aeruginosa (MIC 3.7% and MBC 11.1%) as well as on yeasts and moulds.

GREENQUAT® BT

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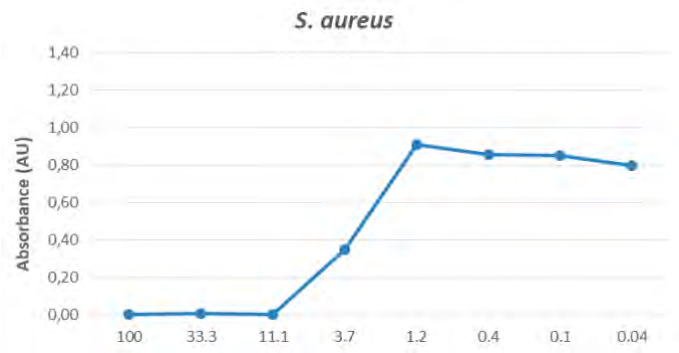
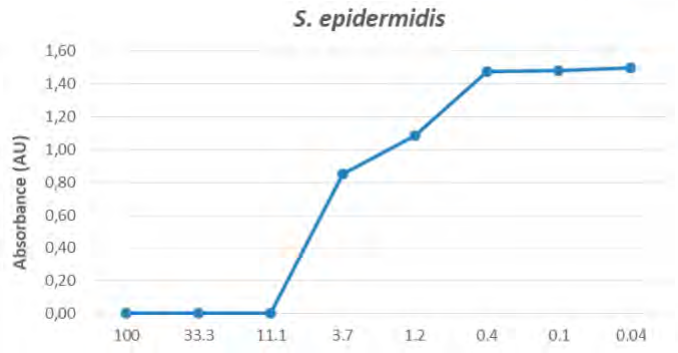
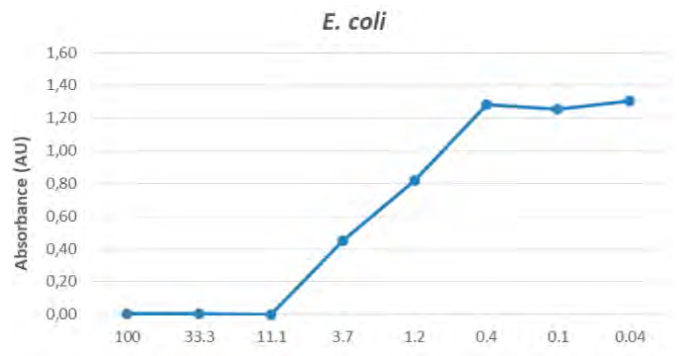
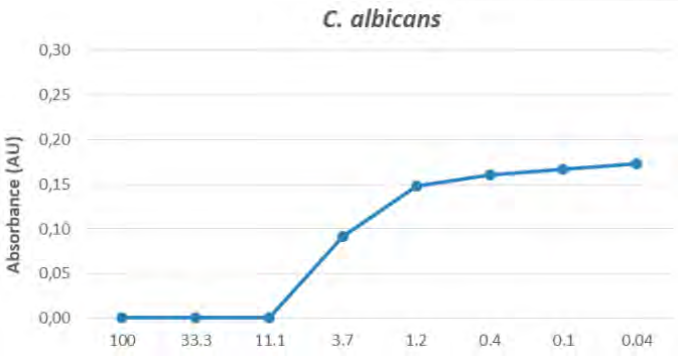
ANTIMICROBIAL ACTIVITY









The delta of absorbance reported, represents the optical density of each strain for each dilution of the tested product

Analysis of the microbial inhibition after incubation with the tested product.
Microbial strains: S. aureus (ATCC 6538), S. epidermidis (ATC 12228), E. coli (ATCC 8739), P. aeruginosa (ATCC 9027), C. albicans (ATCC 10231 and A. brasiliensis (ATCC 16404)).