

Urinary infections disorders : UTIrose™ efficiency on E. Coli and Candida albicans.

UTIrose™ is a extract of Hibiscus sabdariffa especially developed as a natural answer to Urinary Tract Infections issues.



Although it was first thought that it was only the acidic nature of this herb that prevents bacteria from flourishing, it is now established that Hibiscus sabdariffa contains compounds that prevent the adhesion of E. coli to the bladder wall lining: the calyx contains substantial quantities of polyphenols: flavonoids and proanthocyanidins, reported by several studies to possess excellent antimicrobial activity against organisms like Escherichia coli, Staphylococcus aureus, Bacillus subtilis and Pseudomonas aeruginosa with similar activity than chloramphenicol. This activity has been revealed to be due to polyphenolic nature of specific flavonoids.

Other ingredients include polysaccharides and a high concentration of simple organic acids such as protocatechuic acid. The in vitro study of inhibitory effect of protocatechuic acid on the growth of methicillin-resistant Staphylococcus aureus, Klebsiella pneumoniae, Pseudomonas aeruginosa and Acinetobacter baumannii reported that protocatechuic acid inhibits effectively the growth of these bacterial pathogens.

Faithful to its strategy of searching innovating actives, Burgundy Botanical Extracts has started different studies on the extracts of Hibiscus presenting bacterial anti-adhesive properties in particular. The various selected actives have been subject of regulatory and scientific studies, for the field of health as urinary comfort, with for principal target calming the pains and the inflammation, treating the infection and to limit the relapses.

The purpose of this study was to show the antimicrobial and antibiotic properties of UTIrose according to the US pharmacopeia, in a liquid culture media, with a population equivalent to an urinary infection (cystitis), including *Candida albicans* (*Candida albicans* is frequent human fungal pathogen causal of uroepithelium and oralepithelium infections).

UTIrose contains a high amount of Proanthocyanidins but also anthocyanidins, flavonoids, ...



Within one week

- Reduction from $2.8 \cdot 10^7$ to 0 for *E. coli* = shown antimicrobial effectiveness
- Reduction of $1.6 \cdot 10^7$ to $6.3 \cdot 10^2$ for *Candida albicans* = shown antifungal effectiveness

E.coli is the causal of 90% of cystitis. E.coli + C. albicans are responsible of more than 95%.

The test is over one week like all the antibiotic treatments. Even the products “one shot” to treat this pathology are in fact with prolonged release. The amounts used correspond to those described for the tests with a posology close to the existing products.

Next study in progress is based on Centers for Disease Control and Prevention/Department of Health and Human Services/USA.gov
(http://www.cdc.gov/idsr/files/French_lab_manual_IDSR/chpt9.htm)

