

MUCOSAVE™ FG

NATURAL INGREDIENT WITH **PREBIOTIC ACTIVITY**
TO COUNTERACT GASTROESOPHAGEAL REFLUX DISEASE
AND **IMPROVE THE QUALITY OF LIFE**

ADDITIONAL BENEFIT



**PREBIOTIC
ACTIVITY***

*Report on the in vitro bifidogenic activity of MUCOSAVE™FG

MUCOSAVE™FG is a blend of two herbal extract containing polysaccharides of prickly pear cladodes (*Opuntia ficus indica* (L.)) and biophenols of olive leaves (*Olea europaea* (L.)).

MUCOSAVE™FG is a unique combination specifically created for mucosal treatment and to counteract the main symptoms caused by gastrointestinal disorders.



COMPOSITION

**MUCOSAVE FG™
% (W/W)**

Opuntia ficus indica extract

32 - 35

Olea europaea leaf extract

23 - 25

Total Polyphenols (HPLC METHOD)

3.7 -4.3

SUGGESTED DOSAGE: 400MG/DAY

Gastrointestinal discomfort (GD) is a common disorder that affects 40% of the adult population worldwide¹.

In recent years, significant lifestyle changes caused an increase in GERD incidence. Besides the typical GERD symptoms like regurgitation and heartburn, impairment of QoL includes disturbed sleep, body pain, anxiety, and unsatisfactory sex life². The reflux episodes can occur in daytime but nocturnal symptoms have an important influence on QoL and are associated with complications of GERD.

Natural ingredients represent an interesting option for the management of gastrointestinal disorders³. *O. ficus-indica* (L.) Mill., also known as nopal cactus or prickly pear, is a dicotyledonous angiosperm plant belonging to the Cactaceae family. It is a tropical and subtropical plant usually growing in arid climates especially in the Mediterranean and Central America regions⁴. In Sicily traditional medicine the plant's

cladodes are used in the treatment of gastric ulcer⁵.

This traditional use has been confirmed by scientific studies, suggesting the mucoadhesion effect due to the polysaccharides of cladodes⁴⁻⁵. Olive leaves extracts have been widely used in traditional medicines in many European and Mediterranean countries from ancient times and, furthermore, have been shown to prevent the formation of gastric lesions induced by experimental stress⁶. Other biological activities of olive leaves include antiinflammatory and antioxidant effects thanks to its abundance in secondary metabolites such as polyphenols⁷.

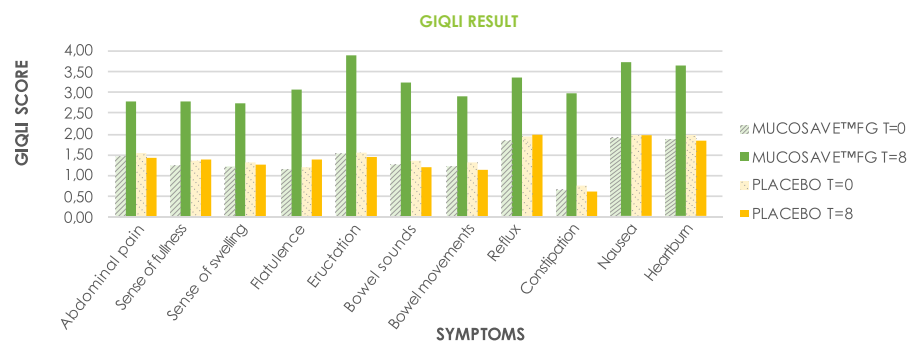
BIONAP has developed **MUCOSAVE™FG**, a blend of two herbal extracts containing polysaccharides of prickly pear cladodes (*Opuntia ficus indica* (L.)) and biophenols of olive leaves (*Olea europaea* (L.)). **MUCOSAVE™FG** is a unique combination specifically created for mucosal support and to

counteract the main symptoms caused by gastrointestinal disorders.

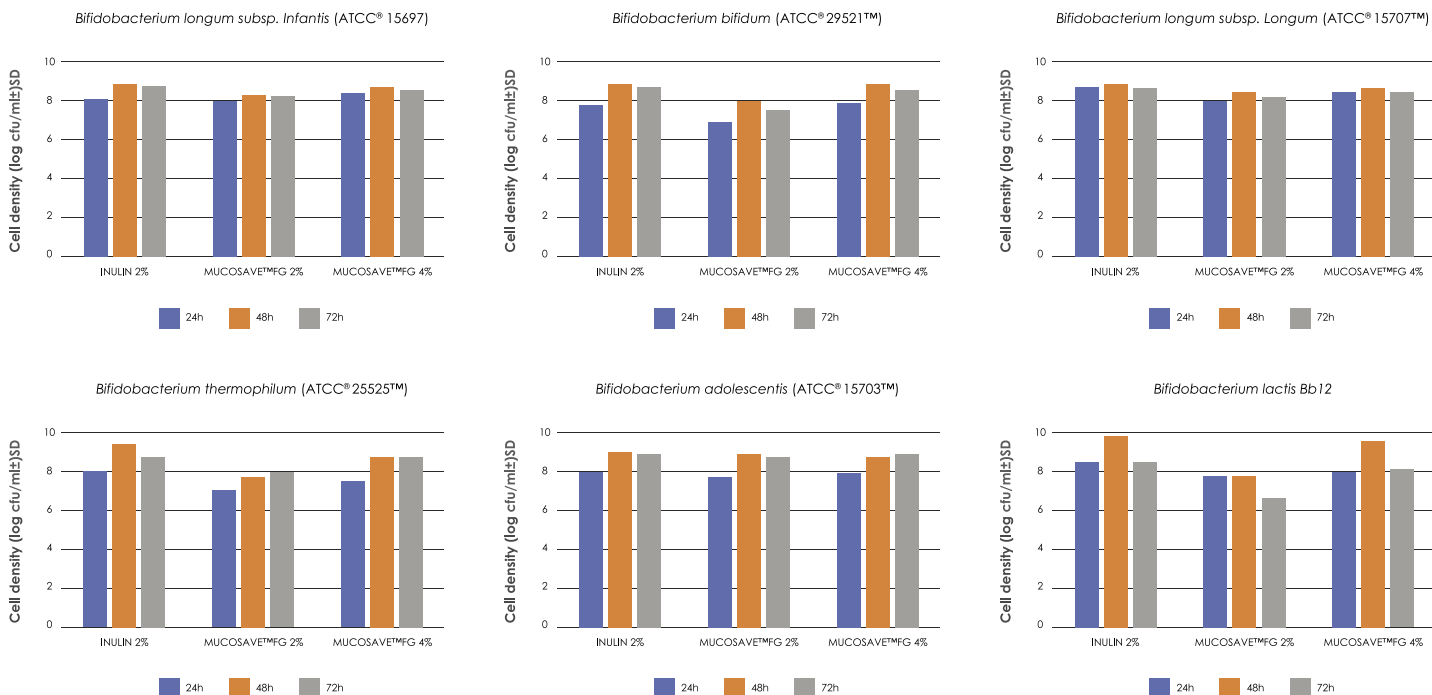
MUCOSAVE™FG antiulcerogenic and gastroprotective properties shown in pre-clinical evaluations⁴⁻⁵⁻⁸, have beneficial effects in people suffering from GD. Indeed, results from a randomized double-blind placebo-controlled clinical trial recently published suggest that **MUCOSAVE™FG** supplementation counteracts GERD symptoms and has a positive impact on the quality of life of people suffering of GD⁹.

The effects of *O. ficus-indica* cladodes and *O. europaea* leaves combined extract are evident just from the first days of administration, decreasing frequency and intensity of main symptoms of GD and GERD. Moreover after 4 weeks of treatment, participants reported a definite improvement in the following symptoms: abdominal pain, sense of fullness, sense of swelling, flatulence, eructation, bowel sounds, bowel movement, reflux, constipation, nau-

sea, and heartburn. Significant amelioration of common GERD symptoms was also observed, especially for pressure in the chest, food back in the mouth and gurgling. To monitor the effect of the supplementation over time, participants completed a daily diary. Interestingly, after only two days, participants experienced the benefits of the supplementation, with an improvement of wellbeing that reached its maximum score after 1 week of supplementation.



In vitro test demonstrated that **MUCOSAVETMFG** possesses significant bifidogenic activity comparable to that exerted by inulin.



In addition, recent preliminary clinical data support the prebiotic activity of **MUCOSAVETMFG**, which is able to modulate the gut microbiota either by direct growth stimulation of beneficial gut bacteria and through antimicrobial effects on bacterial pathogens thus balancing the gut microbiota in people suffering from GD.

Regarding the supply chain, a farmer's network has been created to assure a wide production base and to reduce crop risks. The actual network, ever growing, consists of certified farmlands

no more distant than 2 hours of transport route from the **BIONAP's** processing facility. Lifecycle analysis of **MUCOSAVETMFG** raw material supports the best practice

to reduce the environmental impact. **MUCOSAVETMFG** is **TRU-ID (DNA barcoding)** certified. **MUCOSAVETMFG** is Kosher and Vegan certified and it is a gluten, GMO and BSE/TSE free product.

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