

### When to recommend it?

In bowel disorders (irritable bowel syndrome – IBS)

In diarrhea after antibiotic therapy

In gastrointestinal infections and inflammatory diseases of the gastric mucosa

In gut microbiota disorders

When suffering from deficiency in short-chain fatty acids

In patients after cancer treatment (e.g. intestinal inflammation after radiotherapy)

For the prevention of traveler's diarrhea

**DOSING:** 2\*150 mg

**FORM:** microencapsulated sodium butyrate

## yasenka whitelabel

Yasenka d.o.o.

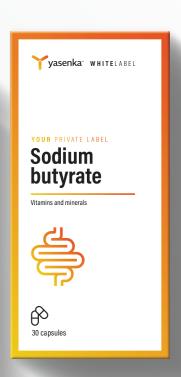
DVANAEST REDARSTVENIKA 2/C 32 000 VUKOVAR, CROATIA T +385 1 3374 024 E whitelabel@yasenka.eu www.yasenkawhitelabel.eu



YOUR PRIVATE LABEL

# Sodium butyrate





#### **Sodium butyrate**

Butyrate or butyric acid is a short-chain fatty acid formed in the large intestine by breaking down prebiotics under the influence of probiotic bacteria. The fermentation products of prebiotics are short-chain fatty acids (acetic, propionic and butyric, and lactic acid).

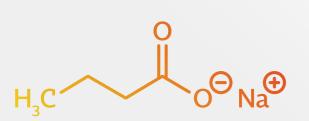
Short-chain fatty acids have positive effects on local and systemic human health: they provide food and energy to the intestinal mucosa cells and reduce the pH in the intestines.

#### **Influence of the reduced pH in the intestines:**

- enables the achievement of the microflora balance
- ⊙ stimulates the growth of good bacteria
- prevents the colonisation of harmful bacteria
- improves the properties of the intestinal mucosa
- increases the bioavailability of minerals (calcium and magnesium)

#### How do butyrates work?

Butyrates are a major source of energy for colon epithelial cells (colonocytes). In addition, several studies have shown that butyrate, besides providing energy to colonocytes ensures their growth and differentiation and enhances the colon's defensive role.



#### **Other roles of sodium butyrate:**

Acts as a signaling metabolite of colonocyte homeostasis (by regulating the balance between cell growth, differentiation, and apoptosis).

Has an anti-inflammatory effect by restoring and strengthening the barrier function of intestinal epithelial cells.

Stimulates the production of mucins – glycoproteins that bind to each other and form a gel that protects the colonic mucosa.

Allows the regeneration of colon cells.

Prevents the impact of free radicals and cell damage.

Affects mucosal cellular immunity – controls immune cell migration, adhesion, and cellular functions such as proliferation and apoptosis.

#### **Clinical studies**

#### RANDOMISED PLACEBO-CONTROLLED STUDY:

Use of microencapsulated sodium butyrate in patients diagnosed with diverticulosis with the aim of reducing the incidence of diverticulitis.

**METHOD:** 73 patients with colon diverticulosis divided into 2 groups

**EXPERIMENTAL GROUP:** administered with 2\*150 mg **CONTROL GROUP:** administered with placebo

After 12 months, the study was completed by 52 patients (30 in the experimental group and 22 in the

control group).

#### DURING THE STUDY, THE FOLLOWING WAS MONITORED:

- ⊙ occurrence of clinical symptoms (pain, fever, leukocytosis)
- number of tests required for the diagnosis of diverticulitis
- number of diagnoses of diverticuliti
- number of hospitalisations and number of operations
- Subjective evaluation of symptom improvemen



**CONCLUSION:** Oral administration of microencapsulated sodium butyrate leads to a reduction in the incidence of clinical symptoms, a reduction in the number of tests and diagnoses of diverticulitis, and a reduction in the number of hospitalisations.

#### RANDOMISED, DOUBLE-BLIND, PLACEBO-CONTROLLED PILOT STUDY:

Effect of sodium butyrate tablets in persons with ulcerative colitis.

#### METHOD:

GROUP A	GROUP B
Patients with mild to moderate colitis who took sodium butyrate (4 g daily) and mesalazine (2.4 g daily) orally for 6 weeks.	Patients with mild to moderate colitis who took mesalazine and placebo orally for 6 weeks.

At the very beginning of the study, data from endoscopic and histological examinations were collected.

#### **RESULTS:**

GROUP A	GROUP B
Out of the 30 patients who entered the study, 12 completed it.	Out of the 30 patients who entered the study, 13 completed it.
No side effects were reported.	No side effects were reported.
Seven patients went into remission, and four patients noticed an improvement in their condition.	Five patients went into remission, and five patients noticed an improvement in their condition.

After the study, the clinical parameters in both groups improved significantly compared to previous results.

**conclusion:** These data suggest the possibility of improving the efficacy of oral administration of mesalazine with butyrate in patients with the active phase of ulcerative colitis.

#### **Clinical studies have shown the effects of sodium butyrate:**

- nrelieving the symptoms of various colon diseases (irritable bowel syndrome, inflammatory bowel disease, diarrhea, malabsorption) and as potential prevention of colon cancer
- in regulating flora, providing energy to colonocytes, reducing oxidative stress, strengthening the colon barrier, regenerating the mucous laver, increasing cell regeneration
- an additional advantage is that no side effects have been observed with the use of sodium butyrate in higher doses