

WHAT IS A POSTBIOTIC?

The term 'postbiotic' which is built from Latin "post" (after; behind) and Ancient Greek "bios" (life) has been proposed in analogy with the term PREBIOTIC. There are many discussions on this rising subject and firstly about the definition itself. Since 2013, six definitions of "postbiotics" had been published prior the last 2022 one, all of which differed on some important aspects.

In general, people understand that postbiotics are metabolites.

Metabolites are not necessarily the results of dead cells. Lactic acid produced by active bacteria actually is a metabolite. So, is lactic acid a postbiotic?

The most recent definition of postbiotics has been established by the Internal Scientific Association for probiotics and Prebiotics (ISAPP):

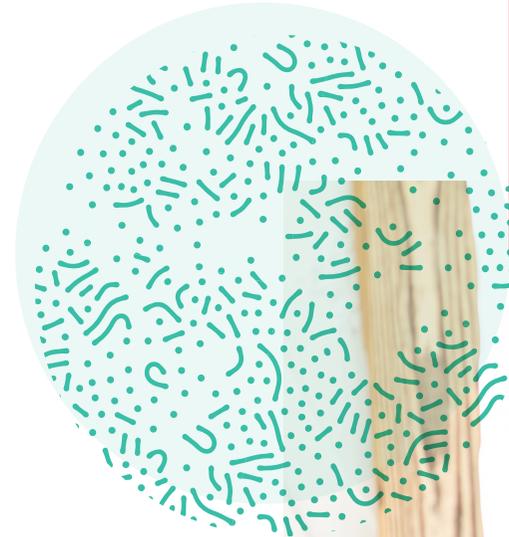
Preparation of inanimate microorganisms and/or their components that confers a health benefit on the host.



WHAT ARE METABOLITES?

Metabolites are the produce of bacteria metabolism.

Metabolites are substances that are produced by bacteria and yeast, which include the goods that support your health such as amino acids, vitamins, short chain fatty acids and more.



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HEAT-INACTIVATED STRAINS



— GOOD TO KNOW

THT can heat-inactivate any type of strain but some of them are particularly resistant. For example, sometimes, 1%¹ of bacteria can survive after a heat-inactivation process.

¹Based on heat-inactivating THT *Lactobacillus helveticus* research

PRESERVING POSTBIOTICS PROPERTIES

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WHAT ARE INANIMATE MICROORGANISM'S COMPONENTS?

Microorganism's components are fragments of the cells such as cells wall, exopolysaccharids, free pilli or internal compounds that could be released by cellular lysis. There is no listing to which one could refer.

WHY IS THERE AN INCREASING INTEREST OF INDUSTRIAL ON INACTIVATED MICROBES AND THEIR PRODUCTS/ COMPONENTS?

1 – STABILITY

Alive microorganism stability issues for certain applications would be solved.

2 – SAFETY

Nonviable cells reduce safety concerns in the case where the use of live microorganisms is risky for final users (pre-terms babies, acute pancreatitis patients, immunocompromised people)

→ Nonviable microbial cells and microbial cell components are an opportunity to facilitate the employment of next-generation probiotics

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WHAT COULD THT POSTBIOTICS DO FOR YOU?

SUPPORT HEALTH & WELLNESS

- Scientific proven benefits like weight reduction, cholesterol, etc.
- Postbiotics could deliver beneficial molecules like lactic acid, acetic acid, etc. directly to your small and big intestine.
- Exopolysaccharides secreted by live bacteria, could provide physiological benefits to the host.

BE A LEADER

- THT can offer tailor made full heat-inactivated formula
- DUALBIOTICS formula (PRO + POSTBIOTICS)

FOOD APPLICATION FRIENDLY ENRICHMENT

- THT postbiotics can be added to enriched food matrix preserving products stability by avoiding any undesired fermentation activities in the product.

STABILITY IMPROVEMENT

- For a full heat-inactivated blend, THT can extend to 3 years your product shelf-life.

