

[Open Peer Review on Qeios](#)

Bifidobacterium lactis/Lactobacillus acidophilus/Inulin Probiotic Supplement

National Cancer Institute

Source

National Cancer Institute. *Bifidobacterium lactis/Lactobacillus acidophilus/Inulin Probiotic Supplement*. NCI Thesaurus. Code C148481.

A tablet probiotic supplement containing the polysaccharide inulin and the non-pathogenic microorganisms *Bifidobacterium lactis* and *Lactobacillus acidophilus*, with potential anti-inflammatory, immunomodulating and protective activities. Upon oral administration of *B. lactis*/*L. acidophilus*/inulin probiotic supplement, the bacterial components in this dietary supplement may improve digestion and promote adequate colonization of the gastrointestinal (GI) tract by modulating the composition of the normal microflora. During colonization in the GI tract, the bacteria may form a protective intestinal barrier that may prevent both damage to the mucosal epithelia caused by toxins and attachment of potential pathogens, which protects against bacterial translocation and infection. In addition, this agent may both reduce the secretion of pro-inflammatory cytokines, including interleukin-10, and potentiate natural and acquired immunity. In colon cancer patients, these probiotic bacteria may favorably modulate the composition of the colon cancer-associated microbiota and may increase expression of tumor-suppressing genes. Inulin promotes growth and activity of beneficial GI bacteria, thereby altering the endogenous flora further.