



Bacteroides fragilis; 23745

Cat. No.: LBST-022FG

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	<i>Bacteroides fragilis</i> was isolated from pleural fluid. It is an anaerobic, Gram-negative, pleomorphic to rod-shaped bacterium.
Target	<i>Bacteroides</i>
Genus	<i>Bacteroides</i>
Application	Study and research
Culture Medium	Medium 693
Culture Conditions	37°C; Anaerobic
Source	pleural fluid, Norway
Risk Group	2
Product Format	Freeze-dried
Packaging	Ampoule tube
Storage	-80°C
Shelf Life	6 years

TARGET INTRODUCTION

Introduction

Bacteroides is a group of promising candidates that has attracted major attentions from scientists as model organisms or community for the investigations of the intestinal microbiota field, due to their powerful adaption characteristics in the host and especially the underlying benefits. *Bacteroides* is a genus of Gram-negative, obligate anaerobic bacteria. *Bacteroides* species are non endospore-forming bacilli, and may be either motile or nonmotile, depending on the species. *Bacteroides*; order is the most abundant group of Gram-negative bacteria which flourish in the human intestine at high densities of 10⁹-10¹¹ CFU per gram of feces, and constitutes over 30 species which are more closely related than members in other bacteria orders. And, *Bacteroides* is considered as one of the major genera of the core microbiota module, of which species with relative abundance of over 1% refers to *B. uniformis*, *B. vulgatus*, *B. caccae*, and *B. thetaiotaomicron*. In addition to the unique physiological characteristics and the special ecological dynamics, *Bacteroides* species are under investigations for their underlying beneficial dialogues with the host. *Bacteroides* species to be considered as next-generation probiotics, and the application of which in prevention or intervention in dysbiosis of gut microbiota and the associated disorders requires further investigations in the modulatory mechanisms and safety evaluation. *Bacteroides* is one of the dominant contributors of SCFA among the intestinal commensals, mostly in the form of acetate and propionate. Accumulated acetate blocks the transportation of toxins between gut lumen and blood, while propionate is capable of inducing the apoptosis of human colon carcinoma cells, and thus avoids the formation of tumors. Moreover, Vitamin K, which is mainly synthesized by gut microbiota candidates such as *Bacteroides*, can help prevent or treat osteoporosis by increasing bone mineral density.

Alternative Names

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