



## GUT HEALTH!

Disease outbreaks and parasitic infestations are a major risk for the sustainability and profitability of aquaculture around the globe.

Sanacore® GM is a functional feed additive to reduce the impact of diseases and parasites on productivity of fish and shrimp. It promotes a healthy gut microbiota and suppresses growth and virulence of the bad bugs.

It makes use of nature's advanced mechanisms, including natural anti-bacterial compounds and Quorum Sensing Inhibition Technology.

### The benefits of Sanacore® GM

- ✓ Broad spectrum disease prevention
- ✓ Reduced mortality caused by bacterial (co-)infections and/or gut parasites
- ✓ Improved performance & productivity



# How it works ...



# Sanacore® GM

## PROBLEM DEFINITION

**Sustainable and profitable aquaculture requires adequate measures to control diseases**

The profitability of many aquaculture operations is at risk due to the difficulty to control a wide diversity of disease agents, including bacteria, virus, protozoa, parasites,... Further intensification of aquaculture will increase the need for effective measures to prevent diseases.

 <b>DISEASE</b>	Corrective: ✗ Increase costs ✗ Loss of productivity ✗ Increase disease risk	 <b>HEALTH</b>	Preventive: ✓ Increase productivity ✓ Increase profitability ✓ Reduce disease risk
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## OUR SOLUTION

**Prevention strategies based on natural health-promoting compounds**

Sanacore® GM, broad spectrum disease prevention based on 5 mode of actions

<b>1</b>	<b>Gut Modulation towards a healthy gut microbiota</b> <ul style="list-style-type: none"> <li>• Bacteriostatic and bactericidal action against a wide range of pathogens (updated list available upon request)</li> <li>• Synergistic use with probiotics</li> </ul>	
<b>2</b>	<b>Reducing pathogenicity and toxicity of bacterial pathogens</b> <ul style="list-style-type: none"> <li>• Pioneering Quorum Sensing Inhibition Technology</li> <li>• Proven efficacy <i>in vitro</i> and challenge models with <i>Vibrio harveyi</i> and <i>Vibrio parahaemolyticus</i></li> <li>• Effective at concentrations well below minimum inhibitory concentration (MIC)</li> </ul>	
<b>3</b>	<b>Increasing gut microbiota diversity</b> <ul style="list-style-type: none"> <li>• Enhancing resilience of gut microbiota to stress situations and pathogenic invasions</li> </ul>	
<b>4</b>	<b>Natural prevention of parasites and reducing their impact on productivity</b> <ul style="list-style-type: none"> <li>• Proven efficacy under lab as well as field conditions against gut parasites protozoa in fish (myxosporidae)</li> <li>• Proven efficacy inhibiting spore germination in microsporidians (EHP)</li> </ul>	
<b>5</b>	<b>Natural anti-inflammatory action and enhanced immune-competence</b>	

## RESULTS

**Overview of key trial results and research data**

	<b>shrimp</b>	improved survival results at harvest in production ponds exposed to different disease challenges and combinations (EMS, EHP, vibriosis, NHP, WFS, WSSV, IMNV)	10-74%	
		survival improvement under experimental EMS challenge	62-107%	
		survival improvement under experimental WFS challenge	40%	
		<i>in vitro</i> inhibition of EHP spores germination	100%	
	<b>tilapia</b>	improved productivity in grow-out cages	Survival: 15%	
			FCR (Feed Conversion Rate)	16%
			final biomass	17%
		improved growth performance under optimal conditions	FCR (Feed Conversion Rate): 4-30%	
			SGR (Specific Growth Rate): 5-22%	
		improved survival under disease challenge	oral challenge Francisella: 32%	
		intra-peritoneal challenge Streptococcus: 17%		
		reduced inflammation in gonads in broodstock infected by myxosporidia ( <i>Mixobolus</i> spp)		
	<b>marine fish</b>	reduced mortality due to prevention of myxosporidia infestation ( <i>Enteromyxum leei</i> ) in cage farming of seabream sp. ( <i>Diplodus puntazzo</i> , <i>Sparus aurata</i> )	4-20 fold	
		reduced prevalence of <i>Enteromyxum leei</i> under experimental challenge ( <i>Sparus aurata</i> )	36%	
		increased gut microbiota diversity indexes ( <i>Sparus aurata</i> , <i>Dicentrarchus labrax</i> )	13-24%	
		reduced mortality due to outbreak monogenean gill parasite ( <i>Diplectanum</i> ) in winter season ( <i>Dicentrarchus labrax</i> )	64%	

## DOSAGE/APPLICATION

- At the feedmill via the mixer (resistant to industrial processing conditions for fish and shrimp feed).
- At the farm top-dressed with a suitable binder.

Early stages and high level of disease risk 2-5 kg/MT  
 Growout stages and low-moderate levels of disease risk 1-2 kg/MT

We welcome you to consult our health experts to design an optimal additive strategy for specific disease challenges in your target species. Request our sensitivity analysis for your pathogen isolates.

## AQUACULTURE SPECIALTY PROGRAMS

 HEALTH	 DIGESTION	 PALATABILITY	 SPECIALTY NUTRITION	 FEED QUALITY	 FARM CARE
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**ADISSEO**  
 A Bluestar Company