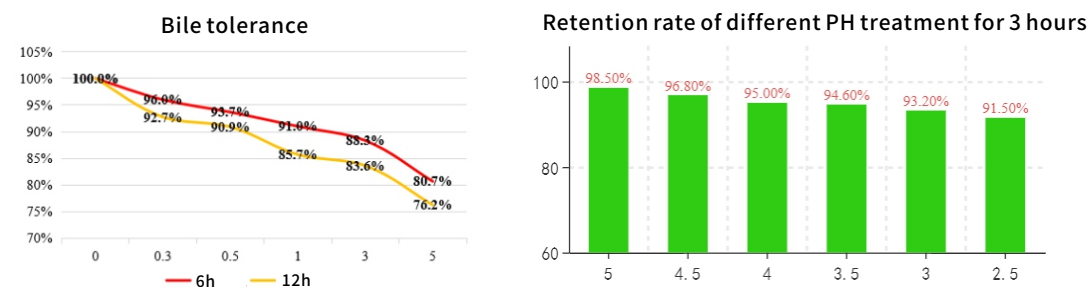




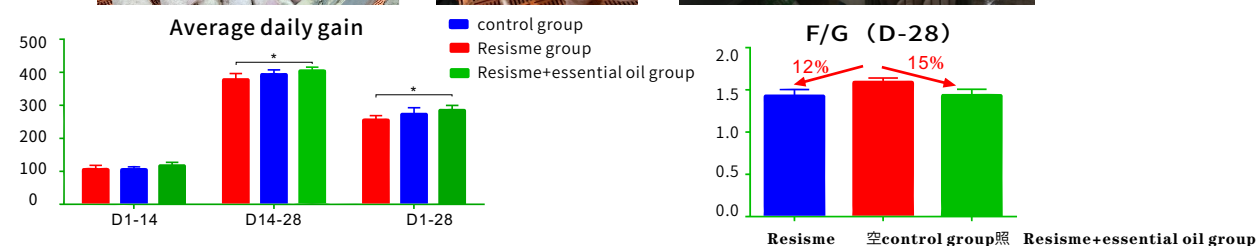
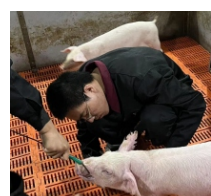
④Resisme have excellent resistance to heat, acid and alkali, bile salts, and digestive enzymes, and can be stored at room temperature for a long time!



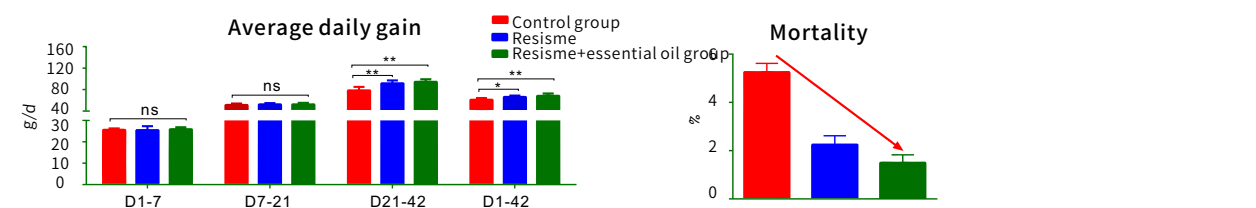
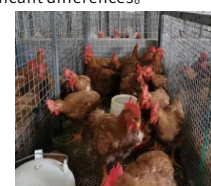
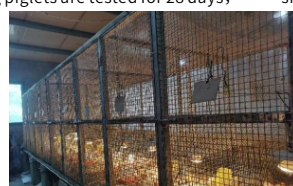
## Animal test



↑ Improvement in growth performance  
↓ Significant reduction in drug use



Note: Weaning piglets are tested for 28 days, “\*” significant differences.



Note: Broiler trial for 42 days, “ns” non-significant differences, “\*” significant differences, “\*\*\*” highly significant difference.

## Resisme information

**[Component]** Modified phospholipase, 1000 u/g;

**[Recommendation Dosage]** 200-250 g per ton of complete feed for pigs, poultry and ruminants;

**[Package]** 25kg/bag



Address(Add.): Xiaoshu Industrial Zone, Meixi Town, Anji County, Huzhou City, Zhejiang Province Zip Code(P.C.): 313307

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# RESISME

Remarkable antibacterial Significant growth promoter

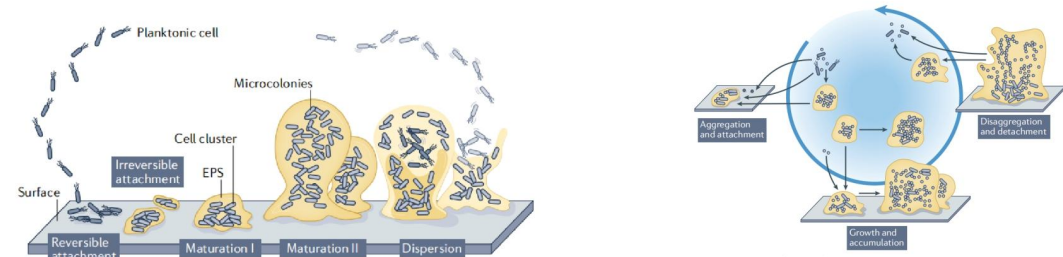


The reasons why many antibiotic substitutes can not effectively replace antibiotics are as follows:

- ① Pathogenic bacteria form biofilms and thus develop drug resistance;
- ② Inhibition spectrum points to unclear;
- ③ Most additives need to be added in large amounts in order to inhibit bacteria.



## How is biofilm produced



Sauer K., et al. (2022). Nature Reviews Microbiology.

1. Prevents the entry of antibiotics and their substitutes, providing time for pathogenic bacteria to adjust and adapt;
2. Extracellular polymers in the biofilm contain a variety of inactivating enzymes, which significantly reduce the effectiveness of antibiotics and their substitutes;
3. The growth rate of pathogenic bacteria inside the biofilm is reduced, which significantly reduces susceptibility of the bacteria to antibiotics

The products should have the following characteristics.

Disrupt biofilm to remove drug resistance

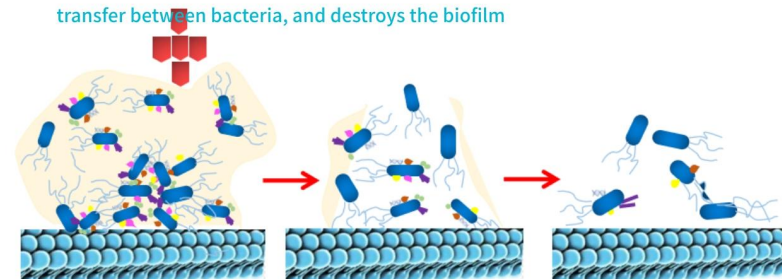
Enhance the ability to inhibit and kill pathogenic bacteria

Strengthen digestive and absorption ability

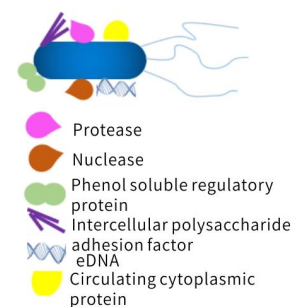
Resisme is a modified phospholipase product developed by Huijia using synthetic biology technology that has the ability to destroy the biofilm of pathogenic bacteria and significantly enhance the function of the intestinal barrier. It has significant antibacterial and growth-promoting effects.

## Three core advantages

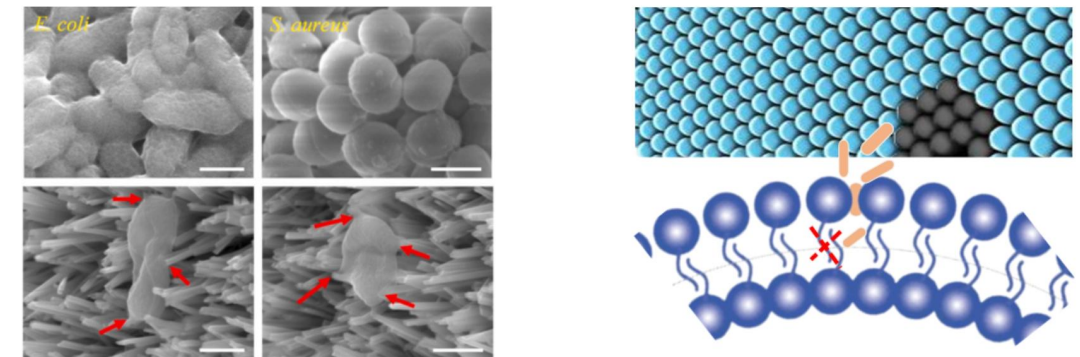
- It blocks the adhesion process of bacteria, interferes with the information transfer between bacteria, and destroys the biofilm



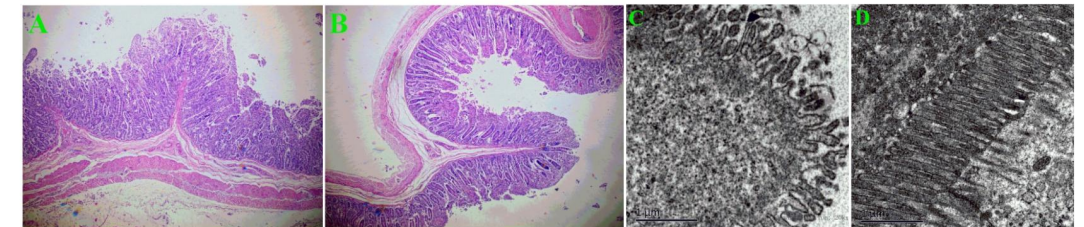
- ♀ Disrupts biofilm  
Removal of bacterial resistance
- ♀ Penetrating biofilm  
Inhibition and co-inhibition of pathogenic bacteria
- ♀ Strengthens the intestinal barrier  
Promotes digestion and absorption



- Resisme penetrates the cell membrane of pathogenic bacteria, loosens the gap of phospholipid molecules and disrupts the membrane structure



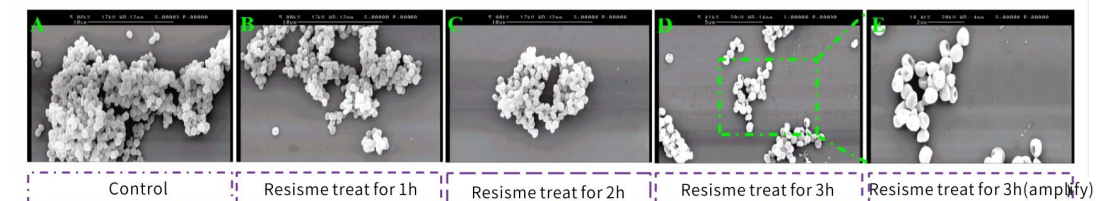
- Resisme improves intestinal villi integrity, increases intestinal mucosal tight junction protein, and promotes nutrient absorption



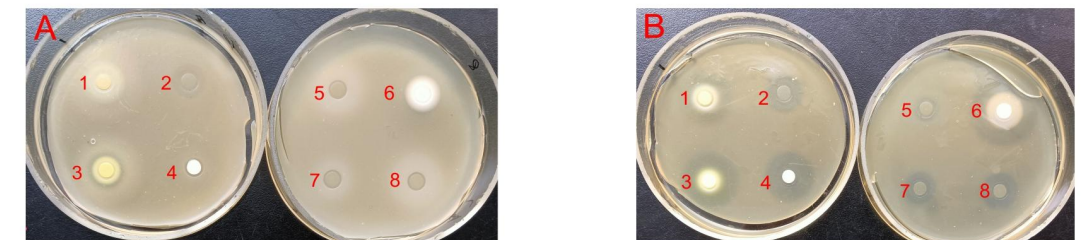
Note: The weaning piglet trial lasts 28 days; A, C: basic control, B, D: Resisme; A and B is HE microtome, C and D is Electron microscope section

## Resisme Trials :

- ① Resisme prevents the formation of Staphylococcus aureus biofilm, destroying the cell structure and exerting antibacterial and bactericidal effects.



- ② Resisme synergistic antibiotic sensitivity tests showed better bacterial inhibition and excellent reproducibility.



Note: A shows the Oxford cup with antibiotics added after the biofilm formation of Staphylococcus aureus, and B shows the Oxford cup with resisme synergistic antibiotics added after the biofilm formation of Staphylococcus aureus.

1-8: Doxycycline, amoxicillin, chlortetracycline, flupentixol, neomycin, tamoxifen, lambdactin and tilmicosin, respectively

- ③ Resisme are used in synergy with antibiotic substitutes to provide significant bacterial inhibition and efficiency.

Item	Synergistic anti-bacterial effect		
	Escherichia coli	Salmonella	Staphylococcus aureus
Oregano Oil	++	+	++
Resisme+ Oregano Oil	+++	++	+++
Bacteriostatic Peptide	++	+	++
Resisme+ Kudzu Bacteriostatic Peptide	+++	++	+++
Acidifier	++	++	+
Resisme+Acidifier	+++	+++	+++

Note: The diameter of the antibacterial circle is greater than 20 mm “+++”, 20<d<12 mm “++”, 12<d<7 mm “+” ; Oregano oil, chymotrypsin and acidulant are commercially available products.