



PerBP

The Cellular Antioxidant for Animal Use

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PerBP is the cellular antioxidant produced by Hunan Perfly Biotech Co., Ltd., for animal use.

Applicable Objects //



PIG



CHICKEN



DUCK



FISH

Composition //

The main active ingredient is biological polyphenol

The types of PerBP are as follows:

PerBP (Universal Type): for all kinds of animals

PerBP (Growth Type): for animals' growth and fattening

PerBP (Reproduction Type): for animals' reproduction

PerBP (Aquatic Type): for aquatic animals

Action Mechanism //

PerBP is a kind of "cellular antioxidant" that improves the organism antioxidant capacity. With the feed into the animal body, it can play a strong role in scavenging free radicals. So PerBP can also be called as "free radical scavenger" in an animal's body.

1. Through the following ways, PerBP carries out the cellular antioxidation and free radicals scavenging

- ① PerBP provides the effect of "antioxidase activator" in vivo: PerBP can activate the organism antioxidant to improve their activities, which plays the roles of cellular antioxidation and scavenging free radicals.
- ② PerBP can provide strong "water-soluble cellular reducing power" to reduce and block the chain reaction of free radicals for animals.

③ PerBP can provide strong “fat-soluble cellular reducing power” to reduce and block the chain reaction of free radicals for animals.

Therefore, as cellular antioxidant, PerBP plays a strong role in scavenging free radicals in vivo.

2. Compared with Vitamin E, the core ingredients of PerBP are as follows

① One of the core components of PerBP is a kind of “biological polyphenols” (Figure 2.) and there are multiple “phenolic hydroxyl groups” that have antioxidant function in its molecular structure. But Vitamin E has only one “phenolic hydroxyl group” (Figure 1.). Therefore, the antioxidant ability of “biological polyphenols” is far more than Vitamin E.

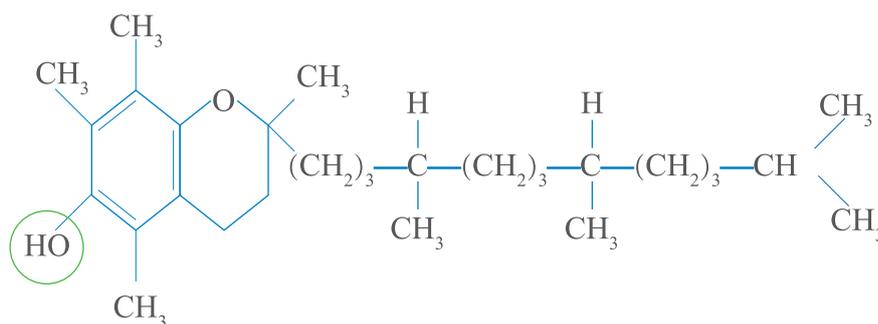


Figure 1. The Molecular Structure of Vitamin E

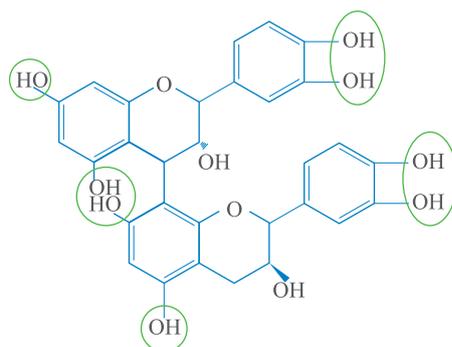


Figure 2. The Molecular Structure of Polyphenols in PerBP

② The biological polyphenols of PerBP and Vitamin E (tocopherols) both belong to the “phenolic substances”. They both depend on “phenolic hydroxyl group” to eliminate free radicals, so the category of scavenging free radicals is the same in animal body.

③ For the biological value of the same dosage, animal experiments showed that PerBP could make the biological value increase by more than one-fold compared with 50% content of Vitamin E acetate.

3. With the removal of free radicals and the realization of the cellular antioxidant effect, the function of PerBP can be achieved as follows :

- Improving the immunity and the effect of immunization inoculation;
- Improving meat quality;
- Improving growth & reproduction performance;
- Reducing stress responses;
- Protecting the liver, reducing the oxidative damage of animal tissues and organs
- Partly replacing expensive antioxidant vitamins for saving formula costs, etc.

Efficacy //

1. For animals' reproduction

- ① Through activating reproductive cells, regulating the level of a variety of sex hormones, reducing fat deposition in the liver and other ways, PerBP plays the roles of improving the activities of reproductive cells and reproductive production performance.
- ② For breeding poultry, laying poultry: PerBP can improve the fertilization rate and hatching rate of breeding poultry; it can also play the roles of advancing laying peak period, increasing laying rate and extending laying period. At the same time, it can also decrease the incidence of fatty liver for breeding poultry and laying poultry after the laying peak period.
- ③ For sows and boars: the effects of PerBP on sows are from improving the activities of reproductive cells, increasing litter size and milk yield, to improving piglets' weaning litter weight; for boars, it improves their sexual ability.
- ④ For ruminants: Dairy cows: PerBP can increase the milk yield and milk fat rate. It also can reduce mastitis. For breeding cattle: it can improve the frozen semen yield, sperm density and sperm motility rate and reduce teratospermia rate.

2. For animals' growth and fattening

- ① PerBP can activate cells and promote metabolism by antioxidant effect on organism; it can also stimulate appetite and improve palatability; it reduces oxidative damage to endocrine organs for promoting the growth of livestock, poultry and aquatic animals, reducing the rate of feed to gain and improving the production performance.

- ② PerBP improves the immunity of animals and the effect of preventive inoculation; it relieves piglets weaning stress, the stress of changing pool and changing fodder. It prevents mulberry Purple Heart disease; it reduces both oxidative damage to vascular endothelia of meat animals and the incidence of ascites syndrome; it reduces the concentration of free radicals in vivo and clinical symptoms of livestock and poultry stress.
- ③ PerBP reduces the oxidation of muscle cells of medium and large pigs resulting in improving flesh color, reducing drip loss and yellow fat meat, and extending the shelf life of meat.
- ④ PerBP reduces liver free radical concentration of fish, shrimp and other aquatic animals. It enhances liver detoxification function. It reduces the morbidity of liver fibrosis, fatty liver and other hepatobiliary syndromes for hepatoprotective and cholagogue effects; it improves aquatic animals' body color and size; PerBP can play the roles in solving the decline in liver detoxification function, hepatomegaly, and the change of body color for aquatic animals.

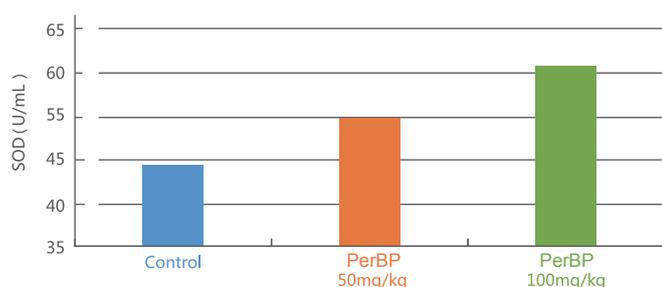
3. PerBP can reduce the dependence on the dosage of expensive antioxidant vitamins to reduce its concentration in the formulas and to save feed costs

Trial Effect //

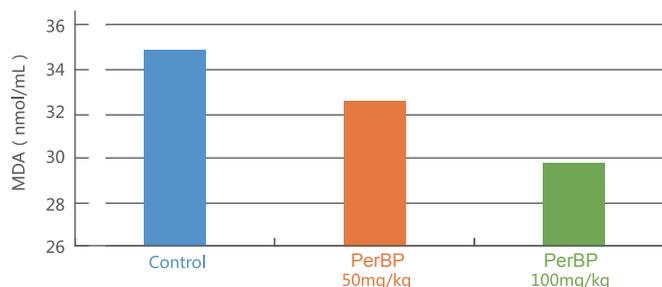
The experimental results on the mechanism and function of PerBP are as follows:

1. As the cellular antioxidant, PerBP improves the cellular ability of anti-oxidation.

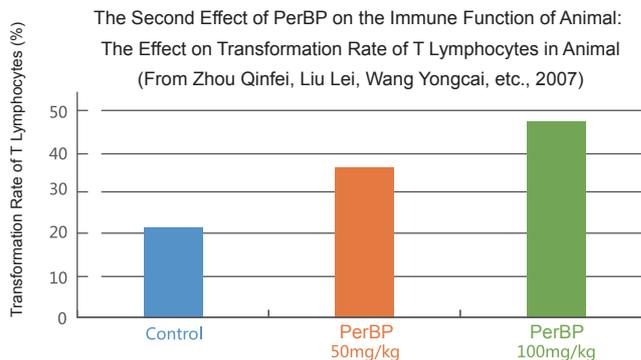
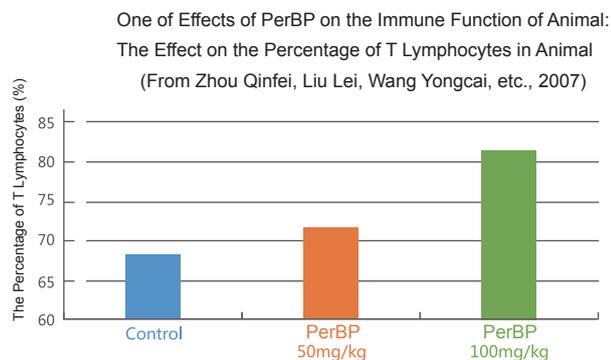
One of Effects of PerBP on Antioxidant Function of Animal Cells:
The Effect on Antioxidase in Animal Serum
(From Zhou Qinfei, Liu Lei, Wang Yongcai, etc., 2007)



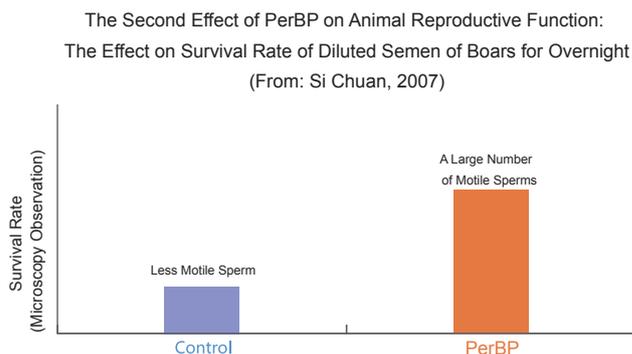
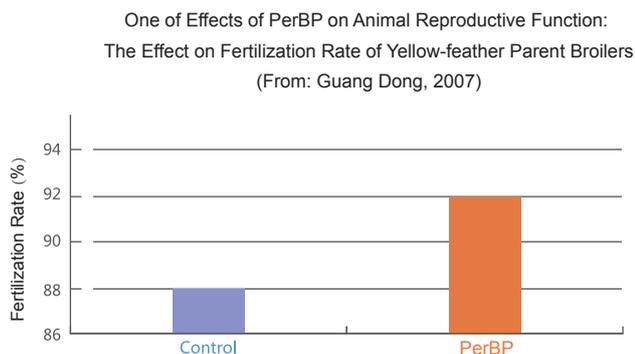
The Second Effect of PerBP on the Antioxidant Function of Animal Cells:
The Effect on MDA Content in Animal Serum
(From Zhou Qinfei, Liu Lei, Wang Yongcai, etc., 2007)



2. PerBP protects the immune organs and immune cells of animals to improve the immunity of animal.



3. PerBP protects reproductive organs and sperm, egg cells to improve the reproductive ability of animal.



Species //

This product can be used for organism antioxidant, it can be used in commercial pigs, sows, boars; broilers, meat ducks, breeding poultry, laying poultry; fish, shrimp and other aquatic animals, dairy cows and other ruminants; pets and so on.

Usage & Dosage //

1. Per T fodder allowed to add this product:

When using PerBP, the following recommended dosage is added in compound feed for various kinds of animals, and concentrated feeds, premixes are in proportion to add this product after conversion:

Species Types of PerBP	Commercial Pig	Meat Animal	Fish	Breeding Poultry, Laying Poultry	Sows, Boars	Dairy Cows, Breeding Cattle	Aquatic Feed
Universal Type (g/T feed)	50-300	30-200	100-300	200-300	200-300	200-300	
Growth & Development Type (g/T feed)	100-300	100-200	100-200				
Reproduction Type (g/T feed)				200-300	200-300	200-300	
Aquatic Type (g/T feed)							100-300

Note: In order to ensure uniformity in the feed, the use of this product need to be premixed firstly, and then gradually added to the follow-up feed.

This product is used as soon as possible after unpacking, the remaining parts need to tie up and keep in dark place.

2. PerBP can partly substitute for expensive antioxidant vitamins for saving the formula costs

PerBP can equal substitute for the demand for vitamin raw materials dosage that can conform to antioxidant and above nutrient requirement in the formula.

Packaging & Storage //

This product is packaged in a bag or barrel, the net weight of product is 25kg, and details see the package label.

Keep away from heat, moisture and direct sunlight, not with toxic and harmful substances mixed.

Under the condition of original package, the shelf life is 12 months.

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