

// OPTIMISATION OF CLASSICAL LIVESTOCK FARMING AND IN-VITRO-MEAT-PRODUCTION BY USE OF TETRAPEPTIDES

Ref-Nr: TA-TM 1095 Fleisch

HINTERGRUND

In large-volume livestock farming, up to date large quantities of antibiotics are used prophylactically to support the muscle growth of the animals, although the resulting adverse effects are already generally known (especially development of resistances by pathogens).

PROBLEMSTELLUNG

In order to ensure a sustainable protein supply for the world's growing population, the extent to which muscle mass can be produced by "apparatus" ("cultured meat", etc.) is therefore being intensively investigated in order to decouple land consumption for livestock farming from meat production.

LÖSUNG

As basic mode of action the interaction of the tetrapeptides with the ZIP9 receptor on the cell surface of myoblasts was identified, i.e. the tetrapeptides only need to be used in therapeutic amounts.



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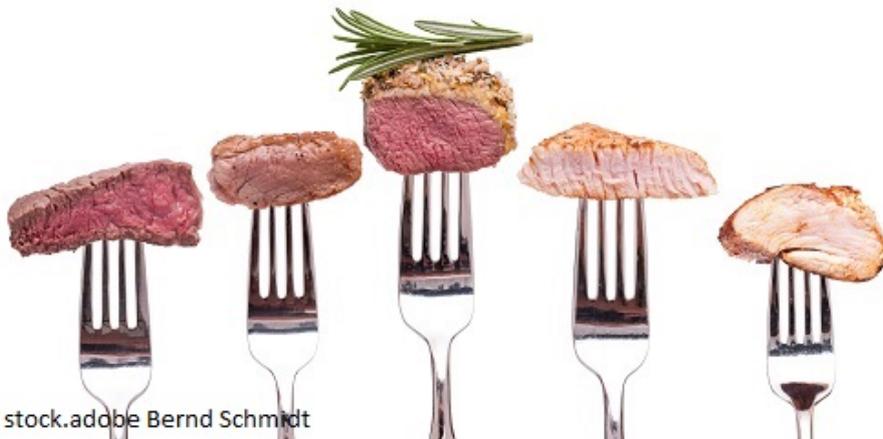
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ENTWICKLUNGSSTAND

Prototyp

CATEGORIES

//Nahrungsmittel- und
Naturstoffproduktion //Medizin und
Pharma



Optimisation of classical livestock farming and in-vitro-meat-production by use of tetrapeptides

VORTEILE

In animal fattening, the tetrapeptides enable the massive reduction of the application of antibiotics.

In artificial meat production, they are harmless, inexpensive and effective additives for the growth media, even in low concentrations. In addition to just growth, they also actively promote fibril formation of myoblasts.

ANWENDUNGSBEREICHE

In the field of food technology, there are basically two independent fields of application:

By using these tetrapeptides in animal fattening, prophylactic administration of antibiotics can most likely at least be massively reduced, possibly even completely limited and restricted to real cases of disease, as muscle growth is already stimulated by the tetrapeptides - administration of antibiotics is then no longer necessary for that purpose).

In the area of artificial meat production ("culture meat"), the tetrapeptides can be used as cost-effective growth-promoting additives to nutrient media which are already effective in low concentrations.

SERVICE

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