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表皮生长因子对肠道功能调控的研究

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Regulation of Epidermal Growth Factor on Intestinal Functions

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摘要 肠道健康决定了动物的整体机能和生产力水平，改善肠道结构与功能对动物健康生长具有重要意义。在畜牧生产中，诸多因素均能导致动物肠道功能损伤、生产力降低和抗病力减弱。表皮生长因子是促生长因子家族成员之一，具有许多生物学作用。表皮生长因子作为有丝分裂原，可刺激细胞分裂、增殖，增加上皮组织的DNA与蛋白质合成等，其独特作用是促进肠道组织生长、发育及损伤后修复，与动物肠道结构和功能密切相关。本文主要就表皮生长因子介导的信号通路、促进肠道发育、修复受损肠道组织、影响肠道各种酶活性以及提高营养物质消化吸收等方面内容进行论述。

关键词： 表皮生长因子 肠道 信号通路 功能调控

Abstract： Gastrointestinal health of animals determines their overall level of function and productivity, and the improvement of structure and function in intestine has a great influence on healthy growth of animals. However, some factors can cause intestinal injury, reduction of growth performance and immunity in animal production. Epidermal growth factor (EGF) is one of growth factor family members, which has many biological functions. EGF can stimulate cellular proliferation and differentiation, and enhance protein and DNA synthesis of epithelial tissues. The unique roles of EGF are promoting growth and development and repairing damage of the intestinal tract, which are related to intestinal structure and function. This paper reviewed the mediated signal pathways by EGF, and its biological functions such as promoting intestinal development, repairing damaged intestine, affecting enzyme activities in intestinal tract and improving digestion and absorption of nutrients.

Keywords： epidermal growth factor, intestinal tract, signaling pathway, functional regulation

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