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The relevance of functional amino acids to support the health of growing pigs

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Highlights

- Constitutive amino acids of various defense proteins are lost in the gut
- Stress and local or systemic inflammation divert amino acids from use for growth
- A more efficient and environmental-friendly feeding requires a better tuning of amino acid requirements for different sanitary conditions

Abstract

On commercial farms, young growing pigs are frequently affected by health problems from multifactorial origins (e.g. environmental changes, biosecurity, management, and feed) that result in inflammation and activation of body defenses. Inflammation states alter animal metabolism in such a way that nutrients (particularly amino acids) are diverted from the use for growth towards the production of defense-related proteins and low-molecular-weight compounds (e.g., nitric oxide, H₂S, and glutathione) for supporting the

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