Cite this as: Li WU, Liu-qin HE, Zhi-jie CUI, Gang LIU, Kang YAO, Fei WU, Jun LI, Tie-jun LI, 2015. Effects of reducing dietary protein in the expression of nutrition sensing genes (amino acid transporters) in weaned piglets. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*. 16(6):496-502. [doi:10.1631/jzus.B1400259]

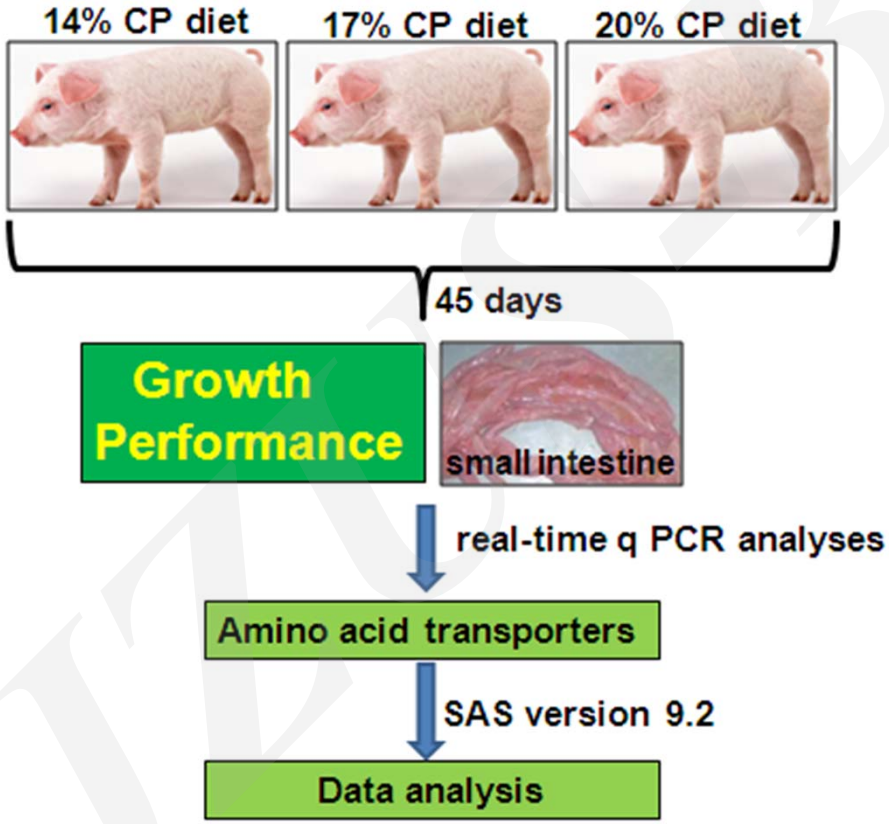
Effects of reducing dietary protein in the expression of nutrition sensing genes (amino acid transporters) in weaned piglets

Key words: Crude protein, Amino acid balance, Amino acid transporters

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Research Summary

This study mainly focused on the expression differential of amino acid transporters during a 45 day trial following aspects:



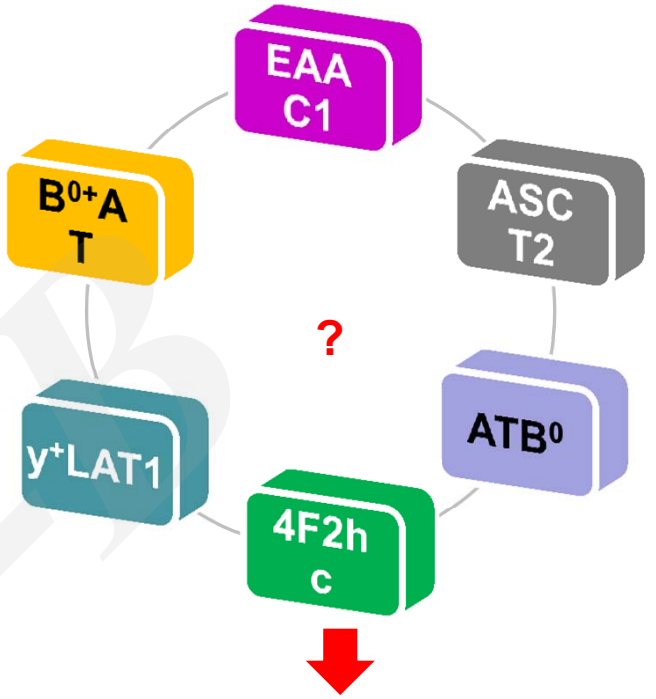
- **Growth performance of piglets fed diets**
- **mRNA expression of amino acid transporters**

Innovation points

- **Introduction** of the six amino acid transporters from 3 groups (14%, 17% and 20% CP in the diet)

- **Summary** of the 17% CP level is more suitable than 14% CP level in piglets.

- **Emphasis** of a reduction of dietary 17% CP may reduce the excretion of nitrogen into the environment while supporting the development of piglets



item	14 % CP	17 % CP	20 % CP	SEM	P-value
ASCT2	1	1.23	1.48	0.14	0.034
EAAC1	1	0.94	1.41	0.15	0.027
$B^{0+}AT$	1	1.49	1.44	0.16	0.016
$y^{+}LAT1$	1	0.87	0.92	0.04	0.7369
4F2hc	1	1.12	1.47	0.14	0.0846
ATB^{0}	1	1.06	1.56	0.18	0.0142

Innovation points

A series of tables were generated to summarize the latest results for the effects of crude protein (CP) levels.

Table 1 | Composition and nutrient level of diets.

Table 2 | CP content and AA composition of feed ingredients.

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Table 3 | Primers used for real-time PCR analyzing.

Table 4 | Effects of dietary with different levels of crude protein on jejunal intestinal for amino acid transporters .

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