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Molecular cloning, characterization and expression of the energy homeostasis-associated gene in piglet

Key words: Adropin, *Enho*, Gene coloning, Piglets, RT-PCR

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Research Summary

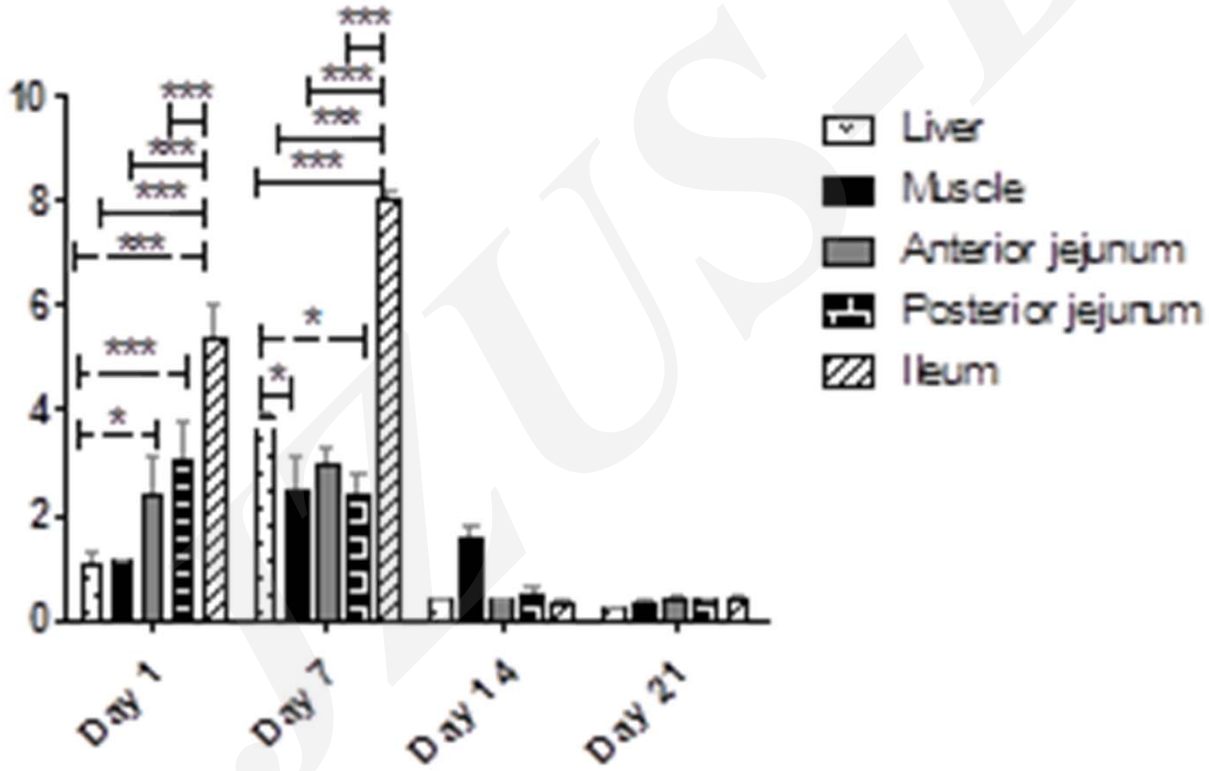
The porcine *Enho* cloned , which encodes a 76-AA protein with one trans-membrane domain or signal peptide. It has a high degree of sequence and structure similarity with bovine *pEnho*.



Nucleotide sequence alignment of *Homo sapiens*, *Mus musculus*, *Bos taurus* and *Sus scrofa Enho*. Multiple sequence alignment was generated using Clustal W 1.83.

Research Summary

The expression profile of *pEnho* in porcine tissues (liver, muscle, anterior jejunum, posterior jejunum and ileum) was determined



The *pEnho* abundance in different tissues of piglets at days 1, 7, 14, 21. All samples were normalized using GAPDH. Data are means ± SEM (n=6). *P < 0.05, **P < 0.01, ***P < 0.001.

Innovation points

A series of comprehensive figures and table were generated when the pEnho sequence was analyzed and the express profiles were determined.

Figure 1| **Nucleotide and predicted amino acid sequences of *pEnho*.**

Figure 2| **Unrooted phylogenetic tree depicting the evolutionary relationship of the vertebrate *Enho* and adropin.**

Figure 3| **Nucleotide sequence alignment of *Homo sapiens*, *Mus musculus*, *Bos taurus* and *Sus scrofa Enho*.**

Figure 4| **Amino acid alignment of *Homo sapiens*, *Mus musculus*, *Bos taurus* and *Sus scrofa Enho*.**

Figure 5| **The putative second structure of the adropin protein of *sus scrofa*.**

Figure 6| **The *pEnho* abundance in different tissues of piglets at days 1, 7, 14, 21.**

Table 1| **The relative abundance of pEnho in different tissues on different days.**