

# PROTEOME PROFILES OF HYPOTHALAMUS, PITUITARY GLAND, ADRENAL GLANDS AND KIDNEY OF BACTRIAN CAMEL

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## ABSTRACT

The hypothalamus-pituitary-adrenal (HPA) system is a neuroendocrine system that is closely linked to stress and the restoration of homeostasis. The kidney plays an important role in regulating water metabolism. We identified proteome profiles of hypothalamus, pituitary gland, adrenal gland and kidney of Bactrian camel using a shotgun proteomic approach. GO annotation and KEGG were predicted using bioinformatic tools. As a result, a total of 2016, 1412, 1333 and 2294 proteins were identified, respectively. We found that the four organs are equipped with a variety of functional proteins related to metabolic process, cellular process, biological regulation, catalytic activity, binding, cell, cell part and organelle. More than 300 pathways in each tissue were identified by KEGG analysis. Plenty of proteins related to adaptation to the desert environment were identified.

**Key words:** Bactrian camel, proteome, shotgun