

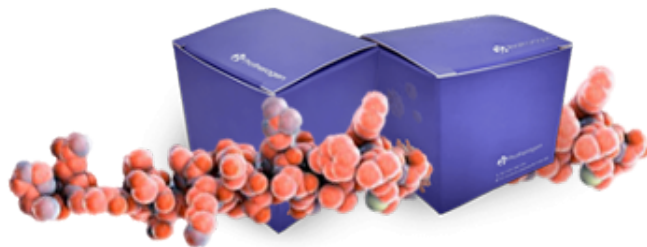
Chicken uncoupling protein 3 (UCP3) ELISA kit

Cat. No.:	0126WXX-2068
Assay Type:	Quantitative ELISA
Target Species:	Chicken
Assay Target:	UCP3
Size:	48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	Chicken uncoupling protein 3 (UCP3) ELISA kit is an ELISA-based <i>in vitro</i> research tool designed specifically for the quantitative detection of UCP3 in chicken samples. The kit is highly sensitive and easy to use.
Assay Principle	The ELISA analytical biochemical technique is based on UCP3 antibody-UCP3 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect UCP3 antigen targets in samples.
Background	UCP3 is a key member of the UCP family, functioning as a transporter located in the inner mitochondrial membrane. Its primary role is to create a proton leakage pathway, allowing protons to bypass the ATP synthase and thereby decouple the oxidative phosphorylation process. This decoupling results in energy that would otherwise be used for ATP synthesis being dissipated as heat rather than stored in chemical bonds. In obesity research, UCP3 serves as a key regulator of thermogenesis and systemic energy balance, exhibiting high expression primarily in skeletal muscle. Studies indicate that elevated UCP3 levels may contribute to increased basal metabolic rate, enhanced fatty acid oxidation, and resistance to weight gain, positioning it as a potential therapeutic target for obesity treatment and improved insulin sensitivity.
Synonyms	SLC25A9; Mitochondrial uncoupling protein 3; UCP 3; Solute carrier family 25 member 9; Uncoupling protein 3; mitochondrial
Formula Weight	22,874 Da

**Applications**

Chicken uncoupling protein 3 (UCP3) ELISA kit is used to quantify UCP3 in serum, plasma, cell culture supernatants, body fluid, tissue homogenate of chicken, providing data to support research in a wide range of areas, including metabolism, mitochondrial function, oxidative stress, exercise physiology, energy balance, obesity, and others.

Research Area

Metabolism; Mitochondrial function; Oxidative stress; Exercise physiology and energy balance; Obesity

Specification

Sample Type

Serum; Plasma; Cell culture supernatants; Body fluid; Tissue homogenate

Cross-reactivity

No significant cross-reactivity or interference was observed.

Storage

Store at 2-8°C.