



Hamster regulatory solute carrier protein family 1 member 1 (RSC1A1) ELISA kit

Cat. No.:	0126WXX-1726
Assay Type:	Quantitative ELISA
Target Species:	Hamster
Assay Target:	RSC1A1
Size:	48T; 96T

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

Product Overview

Description

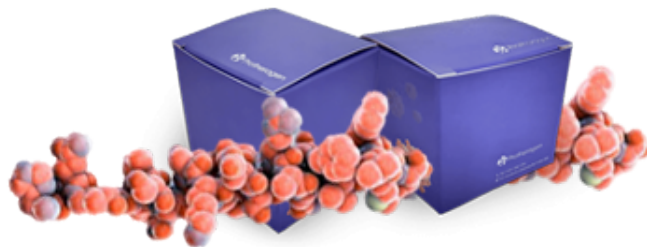
Hamster regulatory solute carrier protein family 1 member 1 (RSC1A1) ELISA kit is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of RSC1A1 in hamster samples. The kit is highly sensitive and easy to use.

Assay Principle

The ELISA analytical biochemical technique is based on RSC1A1 antibody-RSC1A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect RSC1A1 antigen targets in samples.

Background

RSC1A1 is a protein primarily localized to the Golgi apparatus and plasma membrane, whose core function is to act as a regulator of solute carrier (SLC) proteins. RSC1A1 specifically targets sodium-glucose cotransporter 1 (SLC5A1) and organic cation transporter 2 (SLC22A2), regulating their transcription and membrane transport by inhibiting vesicle release. Because RSC1A1 exhibits glucose-dependent inhibition, it plays an indirect role in regulating cellular glucose uptake and metabolic homeostasis. In obesity research, RSC1A1 and its regulated SLC proteins are considered pivotal junctions linking nutrient transport to insulin resistance: SLC5A1 governs glucose absorption in the gut, while SLC22A2 is implicated in drug metabolism and toxin clearance. Thus, by regulating the availability of these transporters, RSC1A1 indirectly influences energy absorption efficiency and metabolic toxicity, positioning it as a potential regulatory node for studying obesity and related metabolic disorders.



Synonyms	Transporter regulator RS1 (hRS1); NIPSNAP4; SLC5A1RP; RSC1; RSC1A
Formula Weight	66,790 Da
Applications	Hamster regulatory solute carrier protein family 1 member 1 (RSC1A1) ELISA kit is used to quantify RSC1A1 in hamster samples, providing data to support research in a wide range of areas, including metabolism, membrane protein trafficking, transcriptional and epigenetic regulation, obesity, and others.
Research Area	Metabolism; Membrane protein trafficking; Transcriptional and epigenetic regulation; Obesity

Specification

Sample Type	Hamster samples
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.