



Sheep 11 beta hydroxysteroid dehydrogenase type 1 (11-beta-HSD1) ELISA kit-Quantitative sandwich

Cat. No.:	0126WXX-373
Assay Type:	Quantitative sandwich ELISA
Target Species:	Sheep
Assay Target:	11-beta-HSD1
Size:	48T; 96T

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

Product Overview

Description

Sheep 11 beta hydroxysteroid dehydrogenase type 1 (11-beta-HSD1) ELISA kit is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of 11-beta-HSD1 in sheep samples. The kit is highly sensitive and easy to use.

Assay Principle

This assay employs a two-site sandwich ELISA to quantify 11-beta-HSD1. A specific capture antibody is pre-coated onto a microplate. Standards and samples are pipetted into the wells, where 11-beta-HSD1 is bound by the immobilized antibody. After washing, a biotin-conjugated detection antibody is added. This is followed by the addition of streptavidin-HRP. After a final wash to remove unbound reagents, a substrate solution is added, and color develops in proportion to the amount of 11-beta-HSD1 bound. The reaction is stopped, and the color intensity is measured.

Background

11 β -HSD1 is a key redox enzyme localized to the endoplasmic reticulum. It reversibly catalyzes the conversion of cortisol to the inactive metabolite cortisone. Although this enzyme exhibits bidirectional activity *in vitro* experiments, within living cells, it primarily converts inactive cortisone to active cortisol, thereby increasing local glucocorticoid concentrations. Obesity and type 2 diabetes are associated with abnormalities in glucocorticoid metabolism. The link between 11 β -HSD1 and obesity represents a critical and extensively studied area of research.



Synonyms	11DH; 11-beta-HSD1; HDL; HSD11; HSD11B; HSD11L; SDR26C1; Corticosteroid 11-beta- dehydrogenase isozyme 1; Short chain dehydrogenase/reductase family 26C, member 1; 11-Beta-Hydroxysteroid Dehydrogenase Type 1; EC 1.1.1.146
EC NO.	1.1.1.146
Formula Weight	32,154 Da
Applications	Sheep 11 beta hydroxysteroid dehydrogenase type 1 (11-beta-HSD1) ELISA kit is used to quantify 11-beta-HSD1 in serum, plasma, and other biological fluids of sheep, providing data to support research in a wide range of areas, including enzyme & kinase, metabolic pathway, endocrinology, cardiovascular biology, neuroscience, hepatology, hormone metabolism, obesity, and others.
Research Area	Enzyme & kinase; Metabolic pathway; Endocrinology; Cardiovascular biology; Neuroscience; Hepatology; Hormone metabolism; Obesity

Specification

Sample Type	Serum; Plasma; Other biological fluids
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.