abcam

Product datasheet

Mouse ACE2 ELISA Kit ab213843

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Overview

Product name Mouse ACE2 ELISA Kit

Detection methodColorimetric

Precision

Sample	n	Mean	SD	CV%
1	16	146pg/ml	11.38	7.8%
2	16	538pg/ml	27.88	4.7%
3	16	1252pg/ml	75.77	6.1%

Inter-assay

Intra-assay

Sample	n	Mean	SD	CV%
1	24	131pg/ml	10.48	8%
2	24	557pg/ml	31.74	5.7%
3	24	1192pg/ml	84.63	7.1%

Sample type Cell culture supernatant, Serum, Hep Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 62.5 pg/ml - 4000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Mouse

Product overview The Mouse ACE2 Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213843) is designed for

the quantitative measurement of Mouse ACE2 in cell culture supernatants, serum and plasma

(heparin).

The ELISA kit is based on standard sandwich enzyme-linked immunosorbent assay technology. A

monoclonal antibody from rat specific for ACE2 has been pre-coated onto 96-well plates. Standards (Expression system for standard: CHO; Immunogen sequence: Q18-T740) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ACE2 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Mouse ACE2 amount of sample captured in plate.

Notes

Angiotensin-converting enzyme 2 (ACE 2) is a protein belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases and has considerable homology to human angiotensin 1 converting enzyme. By sequence similarity to a sequence in GenBank, this gene is mapped to Xp22.2. This secreted protein catalyzes the cleavage of angiotensin I into angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7. The organ- and cell-specific expression of this gene suggests that it may play a role in the regulation of cardiovascular and renal function, as well as fertility. In addition, the encoded protein is a functional receptor for the spike glycoprotein of the human coronaviruses SARS and HCoV-NL63.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Adhesive Plate Seal		4 units	4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Mouse ACE2 coated Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti- Mouse ACE2 antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant Mouse ACE2 standard		2 vials	2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

Function

Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. May be an important regulator of heart function. In case of human coronaviruses SARS and HCoV-NL63 infections, serve as functional receptor for the spike glycoprotein of both coronaviruses.

Tissue specificity Expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells.

> Expressed in lung alveolar epithelial cells, enterocytes of the small intestine, Leydig cells and Sertoli cells (at protein level). Expressed in heart, kidney, testis, and gastrointestinal system.

Sequence similarities Belongs to the peptidase M2 family.

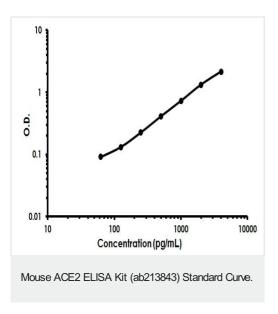
Post-translational

modifications

N-glycosylation on Asn-90 may limit SARS infectivity.

Cellular localization Secreted and Cell membrane.

Images



Mouse ACE2 ELISA Kit (ab213843) Standard Curve.

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