

Human ACE ELISA Kit (CD143) ab119577

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Overview

Product name Human ACE ELISA Kit (CD143)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
1	16	1.278ng/ml	0.626	= 4.9%
2	16	6.839ng/ml	0.465	= 6.8%
3	16	24.157ng/ml	1.087	= 4.5%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	1.358ng/ml	0.086	= 6.5%
2	24	6.35ng/ml	0.482	= 7.6%
3	24	25.528ng/ml	1.225	= 4.8%

Sample type Cell culture supernatant, Saliva, Serum, Hep Plasma

Assay type Sandwich (quantitative)

Sensitivity < 5 pg/ml

Range 0.78 ng/ml - 50 ng/ml

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's Human ACE (CD143) *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of Human ACE (CD143) in cell culture supernatants, serum, plasma (heparin) and saliva.

An ACE (CD143) specific goat polyclonal antibody has been precoated onto 96-well plates. Standards and test samples are added to the wells and incubated. A biotinylated detection

polyclonal antibody from goat, specific for ACE (CD143) is then added 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. TMB is then used to visualize the HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the Human ACE (CD143) amount of sample captured in plate.

Platform Microplate

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
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Human ACE Antibody Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti-human ACE antibody		1 x 100µl	1 x 100µl
Lyophilized Recombinant Human ACE standard		2 x 50ng	2 x 50ng
Plate Seal		1 x 4 units	1 x 4 units
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Amber Bottle	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 Converts angiotensin I to angiotensin II by release of the terminal His-Leu, this results in an increase of the vasoconstrictor activity of angiotensin. Also able to inactivate bradykinin, a potent vasodilator. Has also a glycosidase activity which releases GPI-anchored proteins from the membrane by cleaving the mannose linkage in the GPI moiety.

Tissue specificity Ubiquitously expressed, with highest levels in lung, kidney, heart, gastrointestinal system and prostate. Isoform Testis-specific is expressed in spermatocytes and adult testis.

Involvement in disease Ischemic stroke (ISCHSTR) [MIM:601367]: A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

Renal tubular dysgenesis (RTD) [MIM:267430]: Autosomal recessive severe disorder of renal tubular development characterized by persistent fetal anuria and perinatal death, probably due to pulmonary hypoplasia from early-onset oligohydramnios (the Potter phenotype). Note=The

disease is caused by mutations affecting the gene represented in this entry.
Microvascular complications of diabetes 3 (MVCD3) [MIM:612624]: Pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

Intracerebral hemorrhage (ICH) [MIM:614519]: A pathological condition characterized by bleeding into one or both cerebral hemispheres including the basal ganglia and the cerebral cortex. It is often associated with hypertension and craniocerebral trauma. Intracerebral bleeding is a common cause of stroke. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

Sequence similarities

Belongs to the peptidase M2 family.

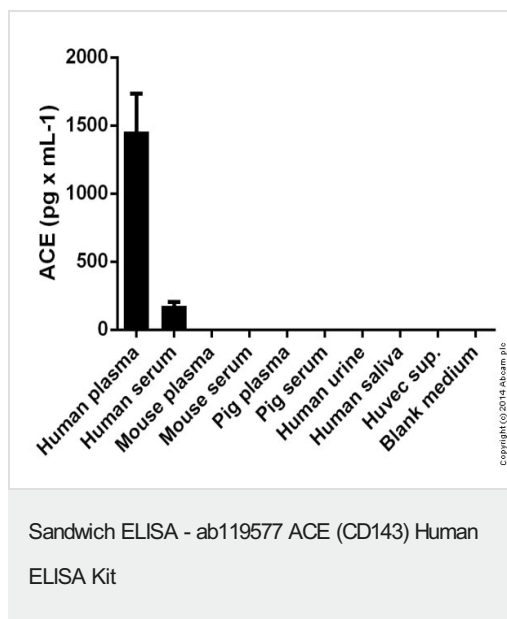
Post-translational modifications

Phosphorylated by CK2 on Ser-1299; which allows membrane retention.

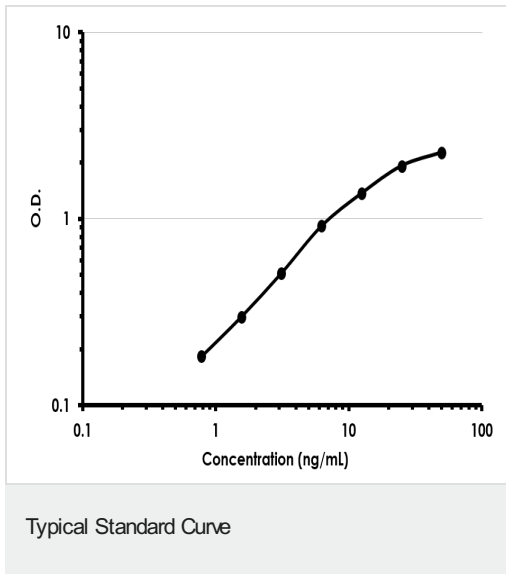
Cellular localization

Secreted and Cell membrane.

Images



ACE measured in various fluids showing quantity (pg) per mL of tested sample



Representative Standard Curve using ab119577.

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