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Datasheet for ABIN1672769 CA9 ELISA Kit

Image



Overview

Quantity:	96 tests
Target:	CA9
Binding Specificity:	AA 59-414
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CA9
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate), Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO
	Immunogen sequence: P59-D414
Specificity:	Expression system for standard: NSO
	Immunogen sequence: P59-D414
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

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Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette
	tips. Multichannel pipettes are recommended in the condition of large amount of samples in the
	detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation
	of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

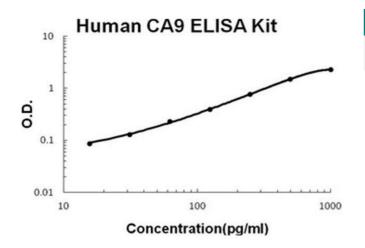
Target:	CA9
Alternative Name:	CA9 (CA9 Products)
Background:	Protein Function: Reversible hydration of carbon dioxide. Participates in pH regulation. May be
	involved in the control of cell proliferation and transformation. Appears to be a novel specific
	biomarker for a cervical neoplasia
	Background: Carbonic anhydrase 9(CA9/CAIX) is an enzyme that in humans is encoded by the
	CA9 gene. Carbonic anhydrases(CAs) are a large family of zinc metalloenzymes that catalyze
	the reversible hydration of carbon dioxide. They participate in a variety of biological processes,
	including respiration, calcification, acid-base balance, bone resorption, and the formation of
	aqueous humor, cerebrospinal fluid, saliva, and gastric acid. This gene is mapped to 9p13.3. CA
	IX is a transmembrane protein and the only tumor-associated carbonic anhydrase isoenzyme
	known. It is expressed in all clear-cell renal cell carcinoma, but is not detected in normal kidney
	or most other normal tissues. It may be involved in cell proliferation and transformation.
	Synonyms: Carbonic anhydrase 9,4.2.1.1,Carbonate dehydratase IX,Carbonic anhydrase IX,CA-
	IX,CAIX,Membrane antigen MN,P54/58N,Renal cell carcinoma-associated antigen G250,RCC-
	associated antigen G250,pMW1,CA9,G250, MN,
	Full Gene Name: Carbonic anhydrase 9
	Cellular Localisation: Nucleus . Nucleus, nucleolus . Cell membrane, Single-pass type I
	membrane protein . Cell projection, microvillus membrane, Single-pass type I membrane
	protein . Found on the surface microvilli and in the nucleus, particularly in nucleolus.
Gene ID:	768
UniProt:	Q16790
Application Details	

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well
	assay was recommended for both standard and sample testing.

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Application Details	
Comment:	Tissue Specificity: Expressed primarily in carcinoma cells lines. Expression is restricted to very few normal tissues and the most abundant expression is found in the epithelial cells of gastric mucosa.
Plate:	Pre-coated
Protocol:	human CA9 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CA9 has been precoated onto 96-well plates. Standards(NSO, P59-D414) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CA9 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was 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 human CA9 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human CA9 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin, EDTA, citrate) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human CA9 standard solution and each sample be measured in duplicate.
Assay Precision:	 Sample 1: n=16, Mean(pg/ml): 152, Standard deviation: 6.4, CV(%): 4.2 Sample 2: n=16, Mean(pg/ml): 354, Standard deviation: 15.9, CV(%): 4.5 Sample 3: n=16, Mean(pg/ml): 687, Standard deviation: 31.6, CV(%): 4.6, Sample 1: n=24, Mean(pg/ml): 158, Standard deviation: 11.1, CV(%): 7 Sample 2: n=24, Mean(pg/ml): 361, Standard deviation: 24.5, CV(%): 6.8 Sample 3: n=24, Mean(pg/ml): 637, Standard deviation: 41.4, CV(%): 6.5
Restrictions:	For Research Use only
Handling	
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

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ELISA

Image 1. Human CA9 PicoKine ELISA Kit standard curve

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