

# Human Cytoplasmic aconitate hydratase (ACO1) ELISA Kit



Catalog No: #EK7657

Orders: order@signalwayantibody.com

Package Size: #EK7657-1 48T #EK7657-2 96T

Support: tech@signalwayantibody.com

## Description

Product Name	Human Cytoplasmic aconitate hydratase (ACO1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	ACONS; IREB1; IREBP; IREBP1; IRP1; OTTHUMP0000021177 aconitase 1 aconitate hydratase citrate hydro-lyase ferritin repressor protein iron regulatory protein 1 iron-responsive element binding protein
Accession No.	P21399
Uniprot	P21399
GeneID	48;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.  The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

## Application Details

Detect Range:0.625-40 ng/mL

Sensitivity:0.267 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

**Detection Method:**SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate ACO1 in samples. An antibody specific for ACO1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyACO1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for ACO1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of ACO1 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**Aconitase 1 is a cytosolic protein which binds to iron-responsive elements (IREs). IREs are stem-loop structures found in the 5' UTR of ferritin mRNA, and in the 3' UTR of transferrin receptor mRNA. The iron-induced binding to the IRE results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degrading transferrin receptor mRNA. The cytoplasmic IREBP interacts with the IREs of these mRNAs. The iron status of the cell determines the ability of IREBP to bind to an IRE through reversible oxidation-reduction of sulfhydryl groups that are critical for the high-affinity RNA-protein interaction. Thus, IREBP plays a central role in cellular iron homeostasis by regulating ferritin mRNA translation and TFRC mRNA stability

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Note: This product is for in vitro research use only