

## Human Cytoplasmic Aconitate Hydratase (ACO1) ELISA Kit | ACO1 elisa kit

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CATALOG #  
**AAA331072**

REACTIVITY  
**Human**

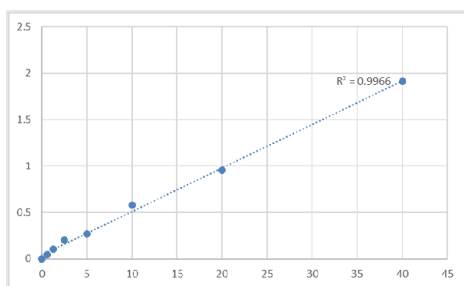
### PRODUCT SYNONYMS

Cytoplasmic Aconitate Hydratase (ACO1); Human Cytoplasmic Aconitate Hydratase (ACO1) ELISA Kit; ACO1; ACONS; IREB1; IREBP; IREBP1; IRP1; OTTHUMP00000021177; aconitase 1; aconitate hydratase; citrate hydro-lyase; ferritin repressor protein; iron regulatory protein 1; iron-responsive element binding protein; ACO1 elisa kit

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Reactivity              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Specificity             | Human Cytoplasmic aconitate hydratase (ACO1) ELISA Kit has high sensitivity and excellent specificity for detection of Human ACO1. No significant cross-reactivity or interference between Human ACO1 and analogues was observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence Length         | 889                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Assay Type              | Sandwich ELISA (Quantitative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Samples                 | Cell Culture Supernatants, Serum, Plasma, Other Biological Fluids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Detection Method        | Colorimetric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Usage Notes             | <ul style="list-style-type: none"> <li>* Do not mix components from different kit lots or use reagents beyond the kit expiration date.</li> <li>* Allow all reagents to warm to room temperature for at least 30 minutes before opening.</li> <li>* Pre-rinse the pipet tip with reagent, use fresh pipet tips for each sample, standard and reagent to avoid contamination.</li> <li>* Unused wells must be kept desiccated at 4 degree C in the sealed bag provided.</li> <li>* Mix Thoroughly is very important for the result. It is recommended using low frequency oscillator or slight hand shaking every 10 minutes.</li> <li>* It is recommended that all samples and standards be assayed in duplicate or triplicate.</li> </ul> |
| Preparation and Storage | Store at 2-8 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### IMAGES



**Standard Curve (Sample)**

Fig.1. Human Cytoplasmic aconitate hydratase (ACO1) Standard Curve.

ADDITIONAL INFORMATION

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Related Product Information for ACO1 elisa kit | <p>Description: This Human Cytoplasmic aconitate hydratase (ACO1) ELISA Kit 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 any ACO1 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.</p> <p>Background: 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</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                          |
|----------------------------------|------------------------------------------|
| NCBI GI #                        | 8659555                                  |
| NCBI GeneID                      | 48                                       |
| NCBI Accession #                 | NP_002188.1                              |
| NCBI GenBank Nucleotide #        | NP_002188.1                              |
| UniProt Accession #              | P21399                                   |
| NCBI Official Full Name          | cytoplasmic aconitate hydratase          |
| NCBI Official Synonym Full Names | aconitase 1                              |
| NCBI Official Symbol             | ACO1                                     |
| NCBI Official Synonym Symbols    | IRP1; ACONS; HEL60; IREB1; IREBP; IREBP1 |
| NCBI Protein Information         | cytoplasmic aconitate hydratase          |
| UniProt Protein Name             | Cytoplasmic aconitate hydratase          |
| UniProt Gene Name                | ACO1                                     |
| UniProt Synonym Gene Names       | IREB1; Aconitase; IRP1; IRE-BP 1         |
| UniProt Entry Name               | ACOC_HUMAN                               |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-elisa-kits/cytoplasmic-aconitate-hydratase-aco1/331072>