



# Magic™ Anti-Aconitase 1 polyclonal antibody (DPABH-16843)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <b>Antigen Description</b> | Iron sensor. Binds a 4Fe-4S cluster and functions as aconitase when cellular iron levels are high. Functions as mRNA binding protein that regulates uptake, sequestration and utilization of iron when cellular iron levels are low. Binds to iron-responsive elements (IRES) in target mRNA species when iron levels are low. Binding of a 4Fe-4S cluster precludes RNA binding. Catalyzes the isomerization of citrate to isocitrate via cis-aconitate. |
| <b>Specificity</b>         | DPABH-16843 detects endogenous levels of total Aconitase 1 protein.                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Target</b>              | Aconitase 1                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Immunogen</b>           | Synthetic non phosphopeptide derived from human Aconitase 1 around the phosphorylation site of serine 711 (Y-G-SP-R-R).                                                                                                                                                                                                                                                                                                                                   |
| <b>Isotype</b>             | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source/Host</b>         | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species Reactivity</b>  | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purification</b>        | Immunogen affinity purified                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Conjugate</b>           | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Applications</b>        | ELISA, IHC-P                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Format</b>              | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Size</b>                | 100 µg                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Buffer</b>              | Constituents: 50% Glycerol, PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), 150mM Sodium chloride, pH 7.4                                                                                                                                                                                                                                                                                                                                           |

|                     |                                               |
|---------------------|-----------------------------------------------|
| <b>Preservative</b> | 0.02% Sodium Azide                            |
| <b>Storage</b>      | Store at -20°C. Stable for 12 months at -20°C |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">ACO1 aconitase 2, soluble [ Homo sapiens ]</a>                                                                                                                                                                                                                                                                                          |
| <b>Official Symbol</b> | ACO1                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>        | ACO1; aconitase 1, soluble; IRP1; ACONS; HEL60; IREB1; IREBP; IREBP1; cytoplasmic aconitate hydratase; IRE-BP 1; citrate hydro-lyase; iron regulatory protein 1; ferritin repressor protein; epididymis luminal protein 60; aconitate hydratase, cytoplasmic; iron-responsive element binding protein 1; iron-responsive element-binding protein 1; |
| <b>Entrez Gene ID</b>  | <a href="#">48</a>                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Refseq</b>  | <a href="#">NP_001265281.1</a>                                                                                                                                                                                                                                                                                                                      |
| <b>UniProt ID</b>      | <a href="#">P21399</a>                                                                                                                                                                                                                                                                                                                              |
| <b>Pathway</b>         | 2-Oxocarboxylic acid metabolism; Biosynthesis of amino acids; Carbon metabolism; Citrate cycle (TCA cycle)                                                                                                                                                                                                                                          |
| <b>Function</b>        | 4 iron, 4 sulfur cluster binding; RNA binding; RNA binding; aconitate hydratase activity                                                                                                                                                                                                                                                            |