



# Rabbit Anti-Human ACO1 (Phospho-Ser711) polyclonal antibody (DPABH-16825)

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

## PRODUCT INFORMATION

<b>Product Overview</b>	Rabbit Anti-Human mTOR (Phospho-Ser2481) polyclonal antibody. This antibody detects endogenous levels of IREB1 only when phosphorylated at Ser711.
<b>Specificity</b>	Target Modification: Phospho. Modification Sites: Human: S711; Mouse: S711; Rat: S711
<b>Target</b>	Human IREB1 (Phospho-Ser711)
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human IREB1 around the phosphorylation site of Ser711. Immunogen range: 681-730
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Purification</b>	Affinity Purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, IHC, ELISA
<b>Molecular Weight</b>	98 kDa
<b>Preparation</b>	The antibody was purified from rabbit antiserum by affinity-chromatography using phospho peptide. The antibody against non-phospho peptide was removed by chromatography using corresponding non-phospho peptide.
<b>Procedure</b>	Phospho-specific Antibodies

<b>Format</b>	Liquid
<b>Concentration</b>	Lot specific
<b>Buffer</b>	Rabbit IgG in PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl and 50% glycerol.
<b>Preservative</b>	0.02% Sodium Azide
<b>Storage</b>	Stable at -20°C for at least 1 year.
<b>Ship</b>	Wet ice
<b>Warnings</b>	For research use only.

## BACKGROUND

<b>Introduction</b>	The protein encoded by this gene is a bifunctional, cytosolic protein that functions as an essential enzyme in the TCA cycle and interacts with mRNA to control the levels of iron inside cells. When cellular iron levels are high, this protein binds to a 4Fe-4S cluster and functions as an aconitase. Aconitases are iron-sulfur proteins that function to catalyze the conversion of citrate to isocitrate. When cellular iron levels are low, the protein binds to iron-responsive elements (IREs), which are stem-loop structures found in the 5' UTR of ferritin mRNA, and in the 3' UTR of transferrin receptor mRNA. When the protein binds to IRE, it results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degraded transferrin receptor mRNA. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alternative splicing results in multiple transcript variants
<b>Keywords</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;

## GENE INFORMATION

<b>Gene Name</b>	ACO1 aconitase 1, soluble [ Homo sapiens (human) ]
<b>Official Symbol</b>	IREB1
<b>Synonyms</b>	ACO1, Aconitate hydratase, Ferritin repressor protein, IRE-BP 1, IRE1, IREBP1, IRP1, aconitase, citrate hydro-lyase, iron regulatory protein 1, iron-responsive element binding protein 1
<b>Entrez Gene ID</b>	<a href="#">48</a>

UniProt ID

[P21399](#)

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