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IRP-1 (phospho Ser711) Polyclonal Antibody

Catalog # AP67686

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P21399
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98399

Additional Information

Gene ID	48
Other Names	ACO1; IREB1; Cytoplasmic aconitate hydratase; Aconitase; Citrate hydro-lyase; Ferritin repressor protein; Iron regulatory protein 1; IRP1; Iron-responsive element-binding protein 1; IRE-BP 1
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

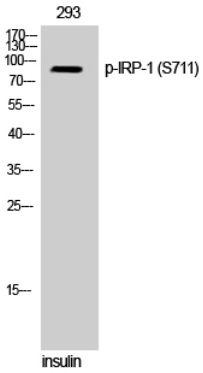
Protein Information

Name	ACO1
Synonyms	IREB1
Function	Bifunctional iron sensor that switches between 2 activities depending on iron availability (PubMed:1281544, PubMed:1946430, PubMed:8041788). Iron deprivation, promotes its mRNA binding activity through which it regulates the expression of genes involved in iron uptake, sequestration and utilization (PubMed:1281544, PubMed:1946430, PubMed:23891004, PubMed:8041788). Binds to iron-responsive elements (IRES) in the untranslated region of target mRNAs preventing for instance the translation of ferritin and aminolevulinic acid synthase and stabilizing the transferrin receptor mRNA (PubMed:1281544, PubMed:1946430, PubMed:23891004, PubMed:8041788).
Cellular Location	Cytoplasm, cytosol.

Background

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.

Images



Western Blot analysis of 293 cells using Phospho-IRP-1 (S711) Polyclonal Antibody