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Anti-Aconitase 1 (Phospho-S138) Antibody

Catalog # AP61170

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P21399
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98399

Additional Information

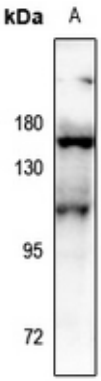
Gene ID	48
Other Names	IREB1; Cytoplasmic aconitate hydratase; Aconitase; Citrate hydro-lyase; Ferritin repressor protein; Iron regulatory protein 1; IRP1; Iron-responsive element-binding protein 1; IRE-BP 1
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S138 of human Aconitase 1 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/IC (1/100 - 1/500) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

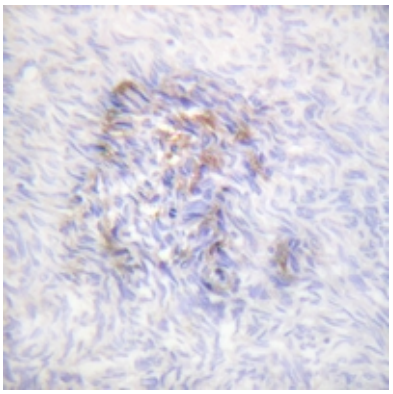
Name	ACO1
Synonyms	IREB1
Function	Bifunctional iron sensor that switches between 2 activities depending on iron availability (PubMed:1281544, PubMed:1946430, PubMed:8041788). Iron deprivation, promotes its mRNA binding activity through which it regulates the expression of genes involved in iron uptake, 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.

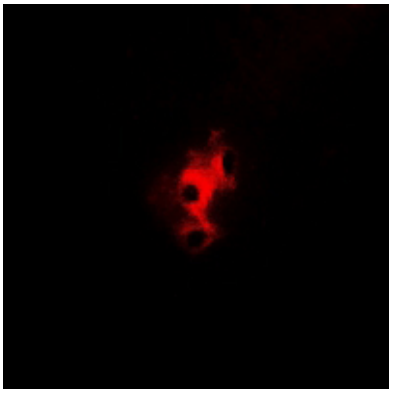
Images



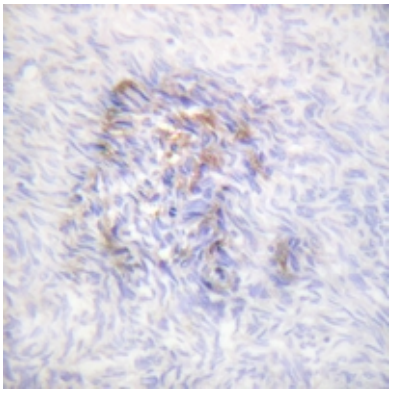
Western blot analysis of Aconitase 1 (Phospho-S138) expression in Hela (A) whole cell lysates. (Predicted band size: 98 kD; Observed band size: 100 kD)



Immunohistochemical analysis of Aconitase 1 (Phospho-S138) staining in human ovary formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Aconitase 1 (Phospho-S138) staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.



Immunohistochemical analysis of Aconitase 1 (pS138) staining in human ovary formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.