

**Anti-Aconitase 1 (pS138) Antibody**  
**Rabbit polyclonal antibody to Aconitase 1 (pS138)**  
**Catalog # AP61170****Specification**

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**Anti-Aconitase 1 (pS138) Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">P21399</a>
Other Accession	<a href="#">P28271</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98399

**Anti-Aconitase 1 (pS138) Antibody - 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**

Recognizes endogenous levels of Aconitase 1 (pS138) protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200), IF/IC (1/100 - 1/500)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-Aconitase 1 (pS138) Antibody - Protein Information****Name ACO1****Synonyms IREB1****Function**

Bifunctional iron sensor that switches between 2 activities depending on iron availability (PubMed: [1281544](http://www.uniprot.org/citations/1281544)), (PubMed: [1946430](http://www.uniprot.org/citations/1946430)), (PubMed: [8041788](http://www.uniprot.org/citations/8041788)).

Iron deprivation, promotes its mRNA binding activity through which it regulates the expression of genes involved in iron uptake, sequestration and utilization (PubMed:<a href="http://www.uniprot.org/citations/1281544" target="\_blank">1281544</a>, PubMed:<a href="http://www.uniprot.org/citations/1946430" target="\_blank">1946430</a>, PubMed:<a href="http://www.uniprot.org/citations/23891004" target="\_blank">23891004</a>, PubMed:<a href="http://www.uniprot.org/citations/8041788" target="\_blank">8041788</a>). 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:<a href="http://www.uniprot.org/citations/1281544" target="\_blank">1281544</a>, PubMed:<a href="http://www.uniprot.org/citations/1946430" target="\_blank">1946430</a>, PubMed:<a href="http://www.uniprot.org/citations/23891004" target="\_blank">23891004</a>, PubMed:<a href="http://www.uniprot.org/citations/8041788" target="\_blank">8041788</a>).

#### Cellular Location

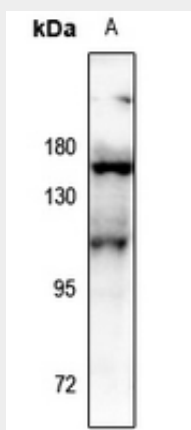
Cytoplasm, cytosol.

### Anti-Aconitase 1 (pS138) Antibody - Protocols

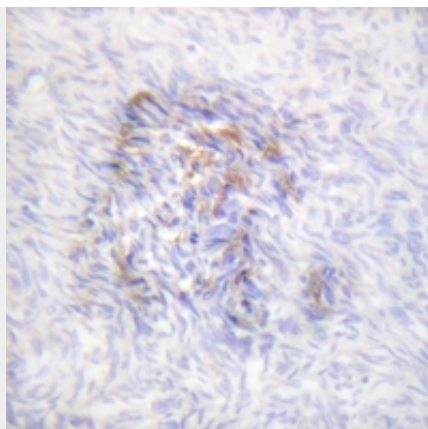
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

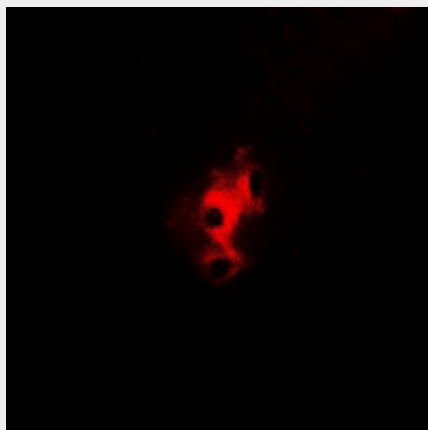
### Anti-Aconitase 1 (pS138) Antibody - Images



Western blot analysis of Aconitase 1 (pS138) expression in HeLa (A) whole cell lysates.



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.



Immunofluorescent analysis of Aconitase 1 (pS138) 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 humidified 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.

#### **Anti-Aconitase 1 (pS138) Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Aconitase 1 (pS138). The exact sequence is proprietary.