

IRP-1 (phospho Ser711) rabbit pAb**Cat#: orb769263 (Manual)**

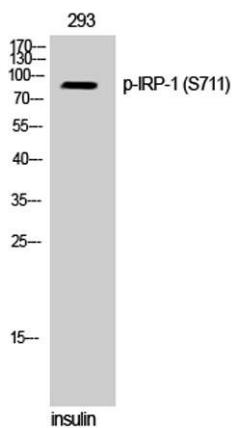
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Product Name	IRP-1 (phospho Ser711) rabbit pAb
Host species	Rabbit
Applications	WB;IHC;IF;ELISA
Species Cross-Reactivity	Human;Mouse;Rat;Monkey
Recommended dilutions	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
Immunogen	The antiserum was produced against synthesized peptide derived from human IREB1 around the phosphorylation site of Ser711. AA range:681-730
Specificity	Phospho-IRP-1 (S711) Polyclonal Antibody detects endogenous levels of IRP-1 protein only when phosphorylated at S711.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Cytoplasmic aconitate hydratase
Gene Name	ACO1
Cellular localization	Cytoplasm, cytosol .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal

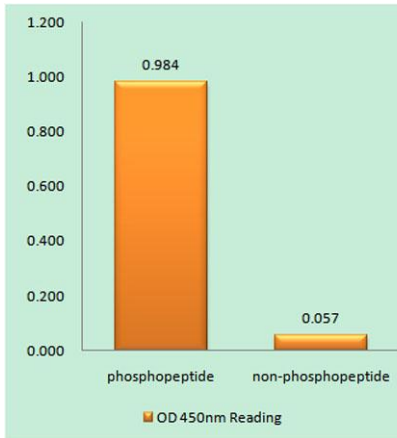
Concentration	1 mg/ml
Observed band	85kD
Human Gene ID	48
Human Swiss-Prot Number	P21399
Alternative Names	ACO1; IREB1; Cytoplasmic aconitate hydratase; Aconitase; Citrate hydrolyase; Ferritin repressor protein; Iron regulatory protein 1; IRP1; Iron-responsive element-binding protein 1; IRE-BP 1

Background

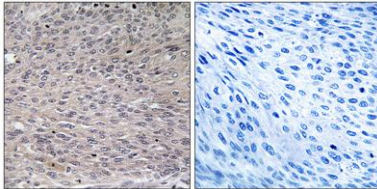
The protein encoded by this gene is a bifunctional, cytosolic protein that functions as an essential enzyme in the TCA cycle and interacts with mRNA to control the levels of iron inside cells. When cellular iron levels are high, this protein binds to a 4Fe-4S cluster and functions as an aconitase. Aconitases 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



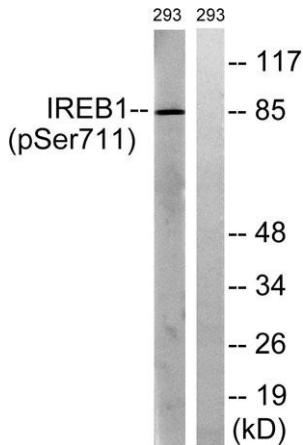
Western Blot analysis of 293 cells using Phospho-IRP-1 (S711) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using IREB1 (Phospho-Ser711) Antibody



Immunohistochemistry analysis of paraffin-embedded human thyroid gland, using IREB1 (Phospho-Ser711) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells treated with insulin 0.01U/ml 30', using IREB1 (Phospho-Ser711) Antibody. The lane on the right is blocked with the phospho peptide.