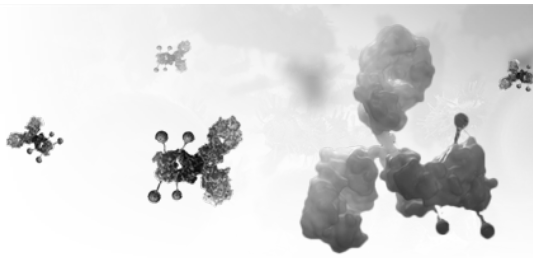

Mouse Anti-IREB2 monoclonal antibody, clone 4C22 (CABT-RM166)

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

PRODUCT INFORMATION

Specificity	Detects Iron regulatory protein 2 (IRP2). It targets an epitope with in 73 amino acids from the N-terminal region.
Target	IREB2
Immunogen	GST-tagged recombinant fragment corresponding to 73 amino acids from the N-terminal region of human Iron regulatory protein 2 (IRP2).
Isotype	IgG, κ
Source/Host	Mouse
Species Reactivity	Human, Mouse
Clone	4C22
Purification	Protein G purified
Conjugate	unconjugated
Applications	IHC, IP, WB
Molecular Weight	105.06 kDa calculated.
Format	Liquid
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
Preservative	0.05% sodium azide

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Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	Iron-responsive element-binding protein 2 is encoded by the IREB2 gene in human. IRP2 is a member of the aconitase/IPM isomerase family that serves as an RNA-binding protein, which regulates the homeostatic binding of intracellular iron to its specific cognate mRNA hairpin structures known as iron-responsive elements (IREs). Its interaction with IRE is shown to be abolished under conditions of high iron. In iron rich cells and in the presence of oxygen, IRP2 is ubiquitinated and degraded in proteasome pathway. Its ubiquitination is achieved by a SCF complex containing FBXL5. Upon iron and oxygen depletion FBXL5 is degraded, preventing ubiquitination and allowing its RNA-binding activity. IN IRP2, Cys201 and His204 have been shown to be critical for IRP2 degradation. Cys201 binds ferric heme and His204 binds ferrous heme and they are involved in sensing the redox state of the heme iron and in generation the oxidative modification. Two isoforms of IRP2 have been described that are produced by alternative splicing.
Keywords	IREB2; iron-responsive element binding protein 2; ACO3; IRP2; IRP2AD; iron-responsive element-binding protein 2; IRE-BP 2; iron regulatory protein 2

GENE INFORMATION

Entrez Gene ID	3658
UniProt ID	P48200

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