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IER5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17351C

Product Information

Application	WB, E
Primary Accession	Q5VY09
Other Accession	NP_057629.2
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37262
Calculated MW	33704
Antigen Region	122-149

Additional Information

Gene ID	51278
Other Names	Immediate early response gene 5 protein, IER5
Target/Specificity	This IER5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 122-149 amino acids from the Central region of human IER5.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IER5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IER5
Function	Plays a role as a transcription factor (PubMed: 22132193, PubMed:25355627). Mediates positive transcriptional regulation of several chaperone genes during the heat shock response in a HSF1- dependent

	manner (PubMed:25355627, PubMed:25816751). Mediates negative transcriptional regulation of CDC25B expression (PubMed:22132193). Plays a role in the dephosphorylation of the heat shock factor HSF1 and ribosomal protein S6 kinase (S6K) by the protein phosphatase PP2A (PubMed:25816751, PubMed:26496226). Involved in the regulation of cell proliferation and resistance to thermal stress (PubMed:22132193, PubMed:25355627, PubMed:26496226). Involved in the cell cycle checkpoint and survival in response to ionizing radiation (PubMed:19238419, PubMed:22132193). Associates with chromatin to the CDC25B promoter (PubMed:22132193).
Cellular Location	Nucleus. Cytoplasm. Note=Predominantly cytoplasmic (PubMed:25816751). Translocated in the nucleus during heat shock (PubMed:25816751).
Tissue Location	Expressed in acute myeloid leukemia (AML) cells.

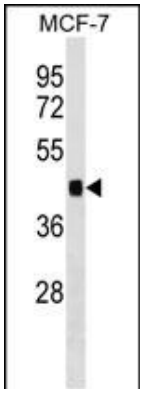
Background

This gene encodes a protein that is similar to other immediate early response proteins. In the mouse, a similar gene may play an important role in mediating the cellular response to mitogenic signals. Studies in rats found the expression of a similar gene to be increased after waking and sleep deprivation.

References

Ding, K.K., et al. Radiat Environ Biophys 48(2):205-213(2009)
Wan, D., et al. Proc. Natl. Acad. Sci. U.S.A. 101(44):15724-15729(2004)
Cirelli, C., et al. Brain Res. 885(2):303-321(2000)
Williams, M., et al. Genomics 55(3):327-334(1999)

Images



IER5 Antibody (Center) (Cat. #AP17351c) western blot analysis in MCF-7 cell line lysates (35ug/lane).This demonstrates the IER5 antibody detected the IER5 protein (arrow).

Citations

- IER family proteins are regulators of protein phosphatase PP2A and modulate the phosphorylation status of CDC25A.
- Regulation of the stability and activity of CDC25A and CDC25B by protein phosphatase PP2A and 14-3-3 binding.
- PP2A-B55 and its adapter proteins IER2 and IER5 regulate the activity of RB family proteins and the expression of cell cycle-related genes

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