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CIP2A/p90 Autoantigen Rabbit pAb

Catalog # AP99872

Product Information

Primary Accession	Q8TCG1
Other Accession	Q8TCG1
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	102185
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human p90 Autoantigen
Epitope Specificity	601-700/905
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBUNIT	Interacts with MYC.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Inhibition of protein phosphatase 2A (PP2A) activity has been identified as a prerequisite for the transformation of human cells. The protein, designated Cancerous Inhibitor of PP2A (CIP2A, p90 Autoantigen), interacts directly with the oncogenic transcription factor c-Myc, inhibits PP2A activity toward c-Myc serine 62 (S62), and thereby prevents c-Myc proteolytic degradation. In addition to its function in c-Myc stabilization, p90 Autoantigen promotes anchorage-independent cell growth and in vivo tumor formation. The oncogenic activity of p90 Autoantigen is demonstrated by transformation of human cells by overexpression of p90 Autoantigen. Importantly, p90 Autoantigen is overexpressed in two common human malignancies, head and neck squamous cell carcinoma (HNSCC) and colon cancer.

Additional Information

Gene ID	57650
Other Names	KIAA1524; NOCIVA; p90; C330027C09Rik; RGD1310335; CIP2A_HUMAN; CIP2A; Cancerous inhibitor of PP2A; p90 autoantigen; CIP2A_MOUSE; p90 autoantigen homolog; D3ZF50_RAT; cellular inhibitor of PP2A; cell proliferation regulating inhibitor of protein phosphatase 2A; cancerous inhibitor of protein phosphatase 2A
Dilution	ICC/IF=1:100-500,Flow-Cyt=1ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CIP2A {ECO:0000303|PubMed:17632056, ECO:0000312|HGNC:HGNC:29302}
Function	Acts as an inhibitor of protein phosphatase PP2A (PubMed: 17632056). Promotes anchorage-independent cell growth and tumor formation by preventing dephosphorylation of MYC, thereby stabilizing MYC in human malignancies (PubMed:17632056). Together with TOPBP1, plays an essential role in the response to genome instability generated by the presence of acentric chromosome fragments derived from shattered chromosomes within micronuclei (PubMed:35121901, PubMed:35842428, PubMed:37165191, PubMed:37316668). Micronuclei, which are frequently found in cancer cells, consist of chromatin surrounded by their own nuclear membrane: following breakdown of the micronuclear envelope, a process associated with chromothripsis, the CIP2A-TOPBP1 complex tethers chromosome fragments during mitosis to ensure clustered segregation of the fragments to a single daughter cell nucleus, facilitating re-ligation with limited chromosome scattering and loss (PubMed:37165191, PubMed:37316668).
Cellular Location	Cytoplasm. Chromosome. Note=Predominantly localizes within the cytoplasm (PubMed:35842428). Localizes to broken chromosomes within micronuclei during interphase and following chromothripsis (PubMed:37165191, PubMed:37316668). Localization to broken chromosomes is mainly independent of MDC1 (PubMed:35121901, PubMed:37165191)
Tissue Location	Expressed at low levels in most of the tissues. Overexpressed in head-and-neck squamous cell carcinomas (HNSCC) Present in liver cancer cells (at protein level)

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