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ING3 Rabbit pAb

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Catalog # AP56347

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9NXR8
Predicted	Human, Mouse, Rat, Chicken, Dog, Pig, Horse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46743
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ING3
Epitope Specificity	341-418/418
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclear
SIMILARITY	Belongs to the ING family.Contains 1 PHD-type zinc finger.
SUBUNIT	Interacts with H3K4me3 and to a lesser extent with H3K4me2. Component of the NuA4 histone acetyltransferase complex which contains the catalytic subunit KAT5/TIP60 and the subunits EP400, TRRAP/PAF400, BRD8/SMAP, EPC1, DMAP1/DNMAP1, RUVBL1/TIP49, RUVBL2, ING3, actin, ACTL6A/BAF53A, MORF4L1/MRG15, MORF4L2/MRGX, MRGBP, YEATS4/GAS41, VPS72/YL1 and MEAF6. The NuA4 complex interacts with MYC and the adenovirus E1A protein. HTATTIP/TIP60, EPC1, and ING3 together constitute a minimal HAT complex termed Piccolo NuA4.
DISEASE	Squamous cell carcinoma of the head and neck (HNSCC) [MIM:275355]: A non-melanoma skin cancer affecting the head and neck. The hallmark of cutaneous SCC is malignant transformation of normal epidermal keratinocytes. Note=The disease may be caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ING3 belongs to a family of proteins containing the plant homeodomain (PHD) finger, which includes transcription factors and proteins that regulate chromatin structure. ING3 is a component of the NuA4 histone acetyltransferase (HAT) complex and can activate p53 trans-activated promoters, including promoters of p21/waf1 and bax. Overexpression of ING3 has been shown to inhibit cell growth and induce apoptosis. Allelic loss and reduced expression of the ING3 gene were detected in head and neck cancers.

Additional Information

Gene ID	54556

Other Names	Inhibitor of growth protein 3, p47ING3, ING3
Target/Specificity	Expressed in brain, heart, kidney, liver, lung, ovaries, placenta, prostate, skeletal muscle, small intestine, spleen, testis and thymus.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	ING3
Function	Component of the NuA4 histone acetyltransferase (HAT) complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. NuA4 may also play a direct role in DNA repair when directly recruited to sites of DNA damage. Component of a SWR1-like complex that specifically mediates the removal of histone H2A.Z/H2AZ1 from the nucleosome.
Cellular Location	Nucleus.
Tissue Location	Expressed in brain, heart, kidney, liver, lung, ovaries, placenta, prostate, skeletal muscle, small intestine, spleen, testis and thymus

Background

ING3 belongs to a family of proteins containing the plant homeodomain (PHD) finger, which includes transcription factors and proteins that regulate chromatin structure. ING3 is a component of the NuA4 histone acetyltransferase (HAT) complex and can activate p53 trans-activated promoters, including promoters of p21/waf1 and bax. Overexpression of ING3 has been shown to inhibit cell growth and induce apoptosis. Allelic loss and reduced expression of the ING3 gene were detected in head and neck cancers.