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NUPR1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58598

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O60356
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	8873
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NUPR1/p8
Epitope Specificity	31-82/82
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Cytoplasm, perinuclear region.
SIMILARITY	Belongs to the NUPR family.
SUBUNIT	Monomer. Directly interacts with MSL1 and binds MORF4L1, two components of histone acetyltransferase complex; the interaction with MORF4L1 may be mediated by MSL1.
Post-translational modifications	Phosphorylated in vitro by PKA and CK. Phosphorylation promotes DNA-binding activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Could participate in the response to proapoptotic stimuli and promotes cellular growth in a way that helps the tissue counteract diverse injuries. May contribute to the metastatic phenotype.Tissue specificity: Highly expressed in pancreas.

Additional Information

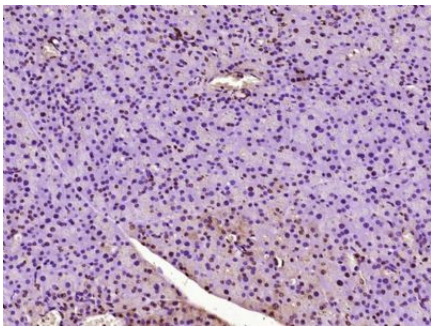
Gene ID	26471
Other Names	Nuclear protein 1, Candidate of metastasis 1, Protein p8, NUPR1 (HGNC:29990), COM1
Target/Specificity	Widely expressed, with high levels in liver, pancreas, prostate, ovary, colon, thyroid, spinal cord, trachea and adrenal gland, moderate levels in heart, placenta, lung, skeletal muscle, kidney, testis, small intestine, stomach and lymph node, and low levels in brain, spleen, thymus and bone marrow. Not detected in peripheral blood leukocytes.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	NUPR1 (HGNC:29990)
Synonyms	COM1
Function	Transcription regulator that converts stress signals into a program of gene expression that empowers cells with resistance to the stress induced by a change in their microenvironment. Thereby participates in the regulation of many processes namely cell-cycle, apoptosis, autophagy and DNA repair responses (PubMed:11056169, PubMed:11940591, PubMed:16300740, PubMed:16478804, PubMed:18690848, PubMed:19650074, PubMed:19723804, PubMed:20181828, PubMed:22565310, PubMed:22858377, PubMed:30451898). Controls cell cycle progression and protects cells from genotoxic stress induced by doxorubicin through the complex formation with TP53 and EP300 that binds CDKN1A promoter leading to transcriptional induction of CDKN1A (PubMed:18690848). Protects pancreatic cancer cells from stress-induced cell death by binding the RELB promoter and activating its transcription, leading to IER3 transactivation (PubMed:22565310). Negatively regulates apoptosis through interaction with PTMA (PubMed:16478804). Inhibits autophagy- induced apoptosis in cardiac cells through FOXO3 interaction, inducing cytoplasmic translocation of FOXO3 thereby preventing the FOXO3 association with the pro-autophagic BNIP3 promoter (PubMed:20181828). Inhibits cell growth and facilitates programmed cell death by apoptosis after adriamycin-induced DNA damage through transactivation of TP53 (By similarity). Regulates methamphetamine-induced apoptosis and autophagy through DDIT3-mediated endoplasmic reticulum stress pathway (By similarity). Participates in DNA repair following gamma-irradiation by facilitating DNA access of the transcription machinery through interaction with MSL1 leading to inhibition of histone H4' Lys-16' acetylation (H4K16ac) (PubMed:19650074). Coactivator of PAX2 transcription factor activity, both by recruiting EP300 to increase PAX2 transcription factor activity and by binding PAXIP1 to suppress PAXIP1-induced inhibition on PAX2 (PubMed:11940591). Positively regulates cell cycle progression through interaction with COPS5 inducing cytoplasmic translocation of CDKN1B leading to the CDKN1B degradation (PubMed:16300740). Coordinates, through its interaction with EP300, the assiociation of MYOD1, EP300 and DDX5 to the MYOG promoter, leading to inhibition of cell-cycle progression and myogenic differentiation promotion (PubMed:19723804). Negatively regulates beta cell proliferation via inhibition of cell-cycle regulatory genes expression through the suppression of their promoter activities (By similarity). Also required for LHB expression and ovarian maturation (By similarity). Exacerbates CNS inflammation and demyelination upon cuprizone treatment (By similarity).
Cellular Location	Nucleus. Cytoplasm Cytoplasm, perinuclear region
Tissue Location	Widely expressed, with high levels in liver, pancreas, prostate, ovary, colon, thyroid, spinal cord, trachea and adrenal gland, moderate levels in heart, placenta, lung, skeletal muscle, kidney, testis, small intestine, stomach and lymph node, and low levels in brain, spleen, thymus and bone marrow. Not detected in peripheral blood leukocytes.

Images



Paraformaldehyde-fixed, paraffin embedded (Mouse pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NUPR1) Polyclonal Antibody, Unconjugated (AP58598) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.