10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MORC2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20588c

Product Information

Application	IF, WB, E
Primary Accession	Q9Y6X9
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB48378
Calculated MW	117823

Additional Information

Gene ID	22880
Other Names	MORC family CW-type zinc finger protein 2, Zinc finger CW-type coiled-coil domain protein 1, MORC2, KIAA0852, ZCWCC1
Target/Specificity	This MORC2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 828-862 amino acids from the C-terminal region of human MORC2.
Dilution	IF~~1:25 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	MORC2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MORC2 {ECO:0000303|PubMed:20225202, ECO:0000312|HGNC:HGNC:23573}
Function	ATP-dependent chromatin remodeler essential for epigenetic silencing by the HUSH (human silencing hub) complex (PubMed:28581500, PubMed:29440755, PubMed:32693025, PubMed:40593625). Recruited by

HUSH to target site in heterochromatin, the ATPase activity and homodimerization are critical for HUSH-mediated silencing (PubMed:28581500, PubMed:29440755, PubMed:32693025). Represses germ cell-related genes and L1 retrotransposons in collaboration with SETDB1 and the HUSH complex, the silencing is dependent of repressive epigenetic modifications, such as H3K9me3 mark. Silencing events often occur within introns of transcriptionally active genes, and lead to the down-regulation of host gene expression (PubMed:29211708). During DNA damage response, regulates chromatin remodeling through ATP hydrolysis. Upon DNA damage, is phosphorylated by PAK1, both colocalize to chromatin and induce H2AX expression. ATPase activity is required and dependent of phosphorylation by PAK1 and presence of DNA (PubMed:23260667). Recruits histone deacetylases, such as HDAC4, to promoter regions, causing local histone H3 deacetylation and transcriptional repression of genes such as CA9 (PubMed:20110259, PubMed:20225202). Exhibits a cytosolic function in lipogenesis, adipogenic differentiation, and lipid homeostasis by increasing the activity of ACLY, possibly preventing its dephosphorylation (PubMed:24286864). Together with MPHOSPH8, mediates silencing of protocadherin genes in the nervous system (By similarity).

Cellular Location

Nucleus. Cytoplasm, cytosol Chromosome Nucleus matrix. Note=Mainly located in the nucleus (PubMed:20225202). Upon phosphorylation at Ser-739, recruited to damaged chromatin (PubMed:23260667)

Tissue Location

Highly expressed in smooth muscle, pancreas and testis

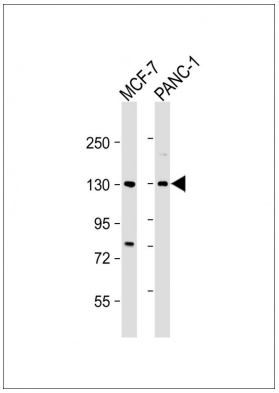
Background

May act as a transcriptional repressor. Down-regulates CA9 expression.

References

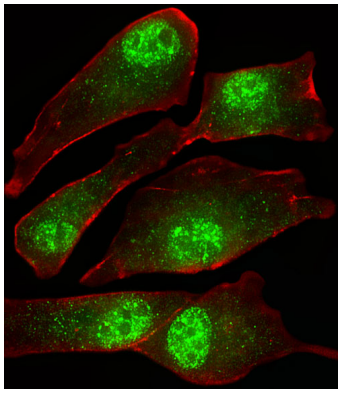
Nagase T.,et al.DNA Res. 5:355-364(1998).
Collins J.E.,et al.Genome Biol. 5:R84.1-R84.11(2004).
Dunham I.,et al.Nature 402:489-495(1999).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).

Images



All lanes : Anti-MORC2 Antibody (C-term) at 1:2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: PANC-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 118 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Fluorescent image of U-87 MG cells stained with MORC2 Antibody (C-term)(Cat#AP20588c). AP20588c was diluted



at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

Citations

- Stabilization of MORC2 by estrogen and antiestrogens through GPER1- PRKACA-CMA pathway contributes to estrogen-induced proliferation and endocrine resistance of breast cancer cells

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