

# MORC2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP20588c

## Product Information

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<b>Application</b>	IF, WB, E
<b>Primary Accession</b>	<a href="#">Q9Y6X9</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB48378
<b>Calculated MW</b>	117823

## Additional Information

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<b>Gene ID</b>	22880
<b>Other Names</b>	MORC family CW-type zinc finger protein 2, Zinc finger CW-type coiled-coil domain protein 1, MORC2, KIAA0852, ZCWCC1
<b>Target/Specificity</b>	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.
<b>Dilution</b>	IF~~1:25 WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	MORC2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MORC2 {ECO:0000303   PubMed:20225202, ECO:0000312   HGNC:HGNC:23573}
<b>Function</b>	ATP-dependent chromatin remodeler essential for epigenetic silencing by the HUSH (human silencing hub) complex (PubMed: <a href="#">28581500</a> , PubMed: <a href="#">29440755</a> , PubMed: <a href="#">32693025</a> ). 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

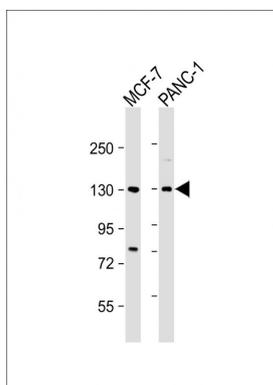
## Background

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

## References

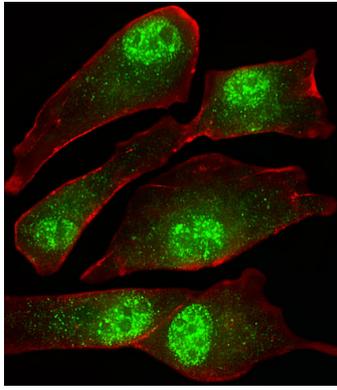
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Dunham I.,et al.Nature 402:489-495(1999).  
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.  
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## Images



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 IgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

## Citations

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

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