abcam

ab230344

Anti-MCAF2 antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human ATF7IP2 aa 300 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link Q5U623
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/50
Notes	-

Target data

See full target information ATF7IP2

Function	Recruiter that couples transcriptional factors to general transcription apparatus and thereby modulates transcription regulation and chromatin formation. Can both act as an activator or a repressor depending on the context. Mediates MBD1-dependent transcriptional repression, probably by recruiting complexes containing SETDB1. The complex formed with MBD1 and SETDB1 represses transcription and probably couples DNA methylation and histone H3 'Lys-9' trimethylation (H3K9me3) activity (Probable).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MCAF2 also known as MBD1-containing chromatin-associated factor 2 or MBD1-interacting protein (MCAF2) is a protein with a mass of approximately 47 kDa. It plays a role in chromatin remodeling by interacting with the methyl-CpG binding domain protein 1 (MBD1). MCAF2 exhibits expression in various tissues with significant levels found in human embryonic kidney cells and fibroblasts. It helps regulate gene expression by recruiting chromatin-modifying enzymes facilitating changes in chromatin structure that can either enhance or hinder transcription.
Biological function summary	MCAF2 functions in the context of DNA methylation and chromatin organization. It is a component of the chromatin-associated complex containing MBD1 that aids in linking DNA methylation status to histone modification important for maintaining gene expression patterns. The function of MCAF2 helps in the organization of euchromatin and heterochromatin regions which is foundational for cellular differentiation processes. MCAF2 collaborates with histone deacetylases (HDACs) to target specific gene loci for transcriptional repression.
Pathways	MCAF2 participates in the regulation of key epigenetic pathways particularly DNA methylation and histone deacetylation. Through its interactions with proteins such as MBD1 and HDACs it contributes to the gene silencing pathways that are important for processes like X-chromosome inactivation and genomic imprinting. MCAF2 plays a role in CpG island methylation pathways influencing the network of proteins involved in transcriptional regulation including those collaborating with histone methyltransferases.
Associated diseases and disorders	MCAF2 has been implicated in cancers particularly through its involvement in regulating genes associated with cell cycle control and apoptosis. Abnormal expression or function of MCAF2 can disrupt these pathways contributing to tumorigenesis. It also links with neurodevelopmental disorders where disruptions in the epigenetic regulation mechanisms interfere with normal brain development. In both cancer and neurodevelopmental disorders MCAF2 functions closely with MBD1 reflecting a significant interaction in pathogenesis tied to its chromatin remodeling activities.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

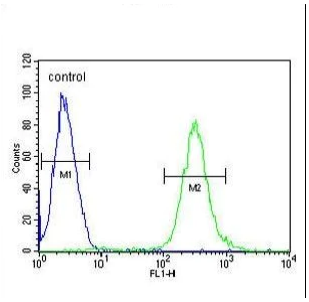
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

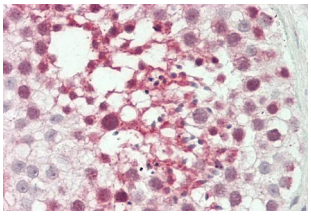
2 product images



Flow Cytometry (Intracellular) - Anti-MCAF2 antibody (ab230344)

MCAF2 Flow Cytometry (Intracellular) staining using rabbit Anti-MCAF2 antibody

Intracellular flow cytometric analysis of CEM cells labeling MCAF2 with ab230344 at 1/10 dilution (green) compared with a negative control control (blue).
FITC-conjugated goat-anti-rabbit secondary antibodies were used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MCAF2 antibody (ab230344)

MCAF2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-MCAF2 antibody

Formalin-fixed, paraffin-embedded human testis tissue stained for MCAT2 with ab230344 at 1/100 dilution in immunohistochemical analysis.

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