Revision 1

Store at -20C

#65747

ARID1B/BAF250B (E1U7D) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P	H M	Endogenous	250, 280	Rabbit IgG	#Q8NFD5	57492

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:500

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ARID1B/BAF250B (E1U7D) Rabbit mAb recognizes endogenous levels of total ARID1B/BAF250B protein. This antibody does not cross-react with ARID1A/BAF250A protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala1320 of human ARID1B/BAF250B protein.

Background

ATP-dependent chromatin remodeling complexes play an essential role in the regulation of nuclear processes such as transcription and DNA replication and repair (1,2). The SWI/SNF chromatin remodeling complex consists of more than 10 subunits and contains a single molecule of either BRM or BRG1 as the ATPase catalytic subunit. The activity of the ATPase subunit disrupts histone-DNA contacts and changes the accessibility of crucial regulatory elements to the chromatin. The additional core and accessory subunits play a scaffolding role to maintain stability and provide surfaces for interaction with various transcription factors and chromatin (2-5). The interactions between SWI/SNF subunits and transcription factors, such as nuclear receptors, p53, Rb, BRCA1, and MyoD, facilitate recruitment of the complex to target genes for regulation of gene activation, cell growth, cell cycle, and differentiation processes (1,6-9).
ARID1B (A-T rich interacting domain 1B), also known as BAF250B, is a DNA-binding member of the SWI/SNF complex. It has 60% homology with ARID1A/BAF250A, and the proteins are mutually exclusive members of the complex, akin to Brg1 and BRM (10). ARID1B plays a role in synapse formation and dendritic arborization in neuronal development, and haploinsufficiency of ARID1B has been reported in intellectual disability (11-13). Mutations in ARID1B have also been shown in Coffin-Siris syndrome (14). ARID1B/BAF250B is a critical vulnerability in ARID1A/BAF250A mutant cancers, and could be explored as a potential therapeutic target (15).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses