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Anti-APOBEC3D Antibody

Catalog # AP54047

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q96AK3
Other Accession	Q8IUX4
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46598

Additional Information

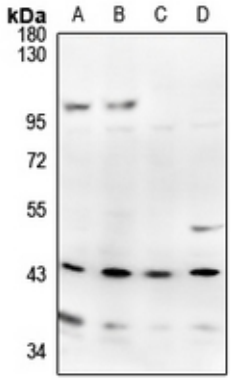
Gene ID	140564
Other Names	APOBEC3D; Probable DNA dC->dU-editing enzyme APOBEC-3D; APOBEC3F; DNA dC->dU-editing enzyme APOBEC-3F; Apolipoprotein B mRNA-editing enzyme catalytic polypeptide-like 3F
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human APOBEC3D. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

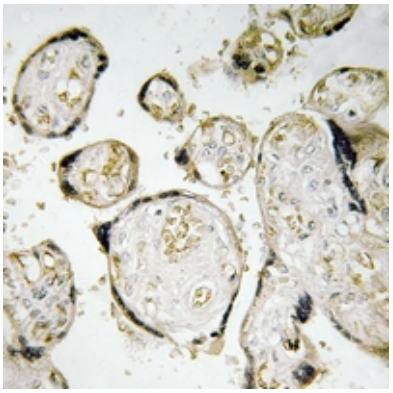
Name	APOBEC3D (HGNC:17354)
Function	DNA deaminase (cytidine deaminase) which acts as an inhibitor of retrovirus replication and retrotransposon mobility via deaminase- dependent and -independent mechanisms (PubMed:16920826, PubMed:20062055, PubMed:21835787). Exhibits antiviral activity against HIV-1. After the penetration of retroviral nucleocapsids into target cells of infection and the initiation of reverse transcription, it can induce the conversion of cytosine to uracil in the minus-sense single- strand viral DNA, leading to G-to-A hypermutations in the subsequent plus-strand viral DNA (PubMed:16920826). The resultant detrimental levels of mutations in the proviral genome, along with a deamination- independent mechanism that works prior to the proviral integration, together exert efficient antiretroviral effects in infected target cells. Selectively targets single-stranded DNA and does not deaminate double-stranded DNA or single- or double-stranded RNA. Also inhibits the

	mobility of LTR and non-LTR retrotransposons (PubMed:27428332).
Cellular Location	Cytoplasm. Cytoplasm, P-body
Tissue Location	Expressed in lymphoid organs. Also detected in non- lymphoid tissues including lung.

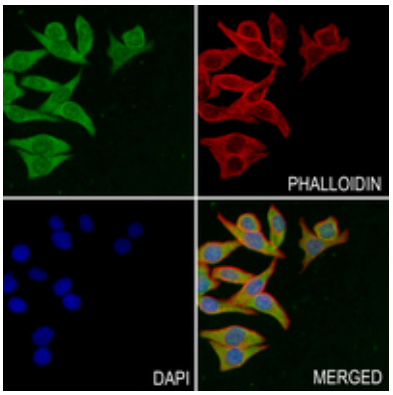
Images



Western blot analysis of APOBEC3D expression in H1792 (A), SKOVCAR3 (B), H9C2 (C), MEF (D) whole cell lysates. (Predicted band size: 46; 45 kD; Observed band size: 46 kD)

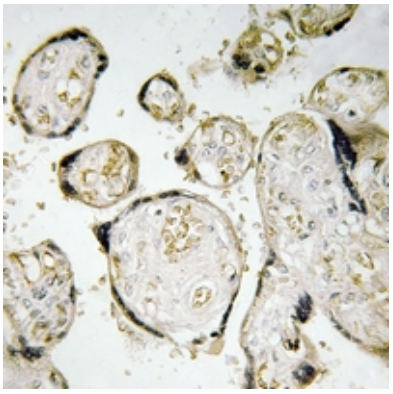


Immunohistochemical analysis of APOBEC3D staining in human placenta formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of APOBEC3D staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of APOBEC3D staining in human placenta formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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