

DC12 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10997b

Specification

DC12 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	Q96FZ2
Other Accession	NP_064572.2 , NP_001006109.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	40575
Antigen Region	281-310

DC12 Antibody (C-term) - Additional Information

Gene ID 56941

Other Names

Embryonic stem cell-specific
5-hydroxymethylcytosine-binding protein,
ES cell-specific 5hmC-binding protein,
Putative peptidase SRAPD1, 34--, SRAP
domain-containing protein 1, HMCES,
C3orf37, DC12, SRAPD1

Target/Specificity

This DC12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 281-310 amino acids from the C-terminal region of human DC12.

Dilution

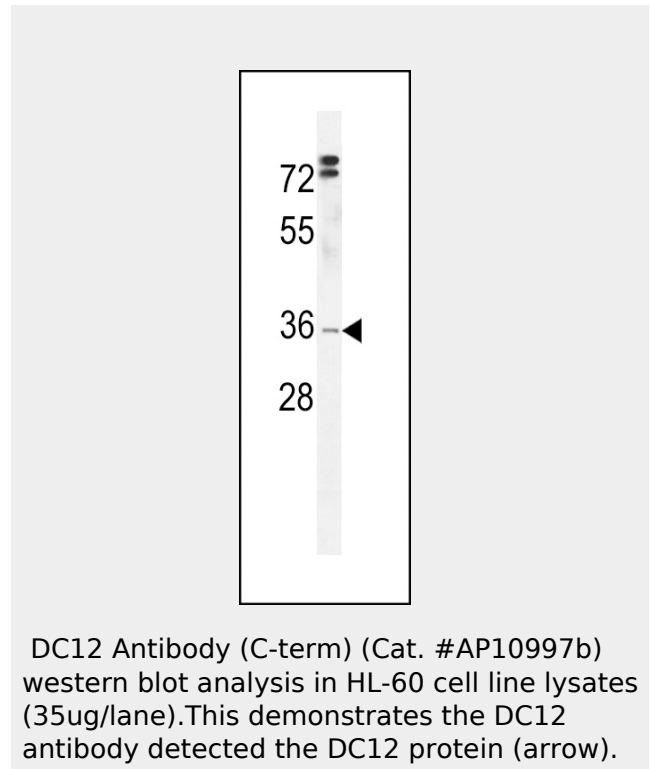
WB~~1:1000

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.



DC12 Antibody (C-term) - References

Gerhard, D.S., et al. Genome Res. 14 (10B), 2121-2127 (2004) :

Precautions

DC12 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DC12 Antibody (C-term) - Protein Information

Name HMCES

{ECO:0000303|PubMed:30554877,
ECO:0000312|HGNC:HGNC:24446}

Function

Sensor of abasic sites in single-stranded DNA (ssDNA) required to preserve genome integrity by promoting error-free repair of abasic sites (PubMed:30554877, PubMed:31235915, PubMed:31235913). Acts as an enzyme that recognizes and binds abasic sites in ssDNA at replication forks and chemically modifies the lesion by forming a covalent cross-link with DNA: forms a stable thiazolidine linkage between a ring-opened abasic site and the alpha-amino and sulfhydryl substituents of its N-terminal catalytic cysteine residue (PubMed:30554877, PubMed:31235913). The HMCES DNA-protein cross-link is then degraded by the proteasome (PubMed:30554877). Promotes error-free repair of abasic sites by acting as a 'suicide' enzyme that is degraded, thereby protecting abasic sites from translesion synthesis (TLS) polymerases and endonucleases that are error-prone and would generate mutations and double-strand breaks (PubMed:30554877). Has preference for ssDNA, but can also accommodate double-stranded DNA with 3' or 5' overhang (dsDNA), and dsDNA-ssDNA 3' junction (PubMed:31235915).

target="_blank">31235915, PubMed:31806351). Also involved in class switch recombination (CSR) in B-cells independently of the formation of a DNA- protein cross-link: acts by binding and protecting ssDNA overhangs to promote DNA double-strand break repair through the microhomology- mediated alternative-end-joining (Alt-EJ) pathway (By similarity). Acts as a protease: mediates autocatalytic processing of its N-terminal methionine in order to expose the catalytic cysteine (By similarity).

Cellular Location

Chromosome. Note=Recruited to chromatin following DNA damage (PubMed:30554877) Localizes to replication forks (PubMed:30554877)

DC12 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)