

# DDA Antibody

Catalog # ASC11372

#### Specification

## DDA Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IHC, IF <u>O9BW61</u> NP\_003253, 13129016 Human, Mouse, Rat Rabbit Polyclonal IgG DDA1 antibody can be used for detection of DDA1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

## DDA Antibody - Additional Information

Gene ID Target/Specificity DDA1;

79016

## **Reconstitution & Storage**

DDA antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** DDA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **DDA Antibody - Protein Information**

Name DDA1 {ECO:0000303|PubMed:17452440, ECO:0000312|HGNC:HGNC:28360}

Function

Functions as a component of numerous distinct DCX (DDB1-CUL4- X-box) E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:<a href="http://www.uniprot.org/citations/17452440" target="\_blank">17452440</a>, PubMed:<a href="http://www.uniprot.org/citations/28437394" target="\_blank">28437394</a>, PubMed:<a href="http://www.uniprot.org/citations/28302793" target="\_blank">28437394</a>, PubMed:<a href="http://www.uniprot.org/citations/28302793" target="\_blank">28302793</a>, PubMed:<a href="http://www.uniprot.org/citations/31686031" target="\_blank">31686031</a>, PubMed:<a href="http://www.uniprot.org/citations/31819272" target="\_blank">31819272</a>). In the DCX complexes, acts as a scaffolding subunit required to stabilize the complex (PubMed:<a href="http://www.uniprot.org/citations/31686031" target="\_blank">31686031</a>, PubMed:<a href="http://www.uniprot.org/citations/31819272" target="\_blank">31686031</a>, PubMed:<a href="http://www.uniprot.org/citations/31819272" target="\_blank">31819272</a>). In the DCX complexes, acts as a scaffolding subunit required to stabilize the complex (PubMed:<a href="http://www.uniprot.org/citations/31819272" target="\_blank">31686031</a>, PubMed:<a href="http://www.uniprot.org/citations/31819272" target="\_blank">31819272</a>).

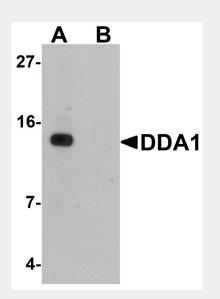


## DDA Antibody - Protocols

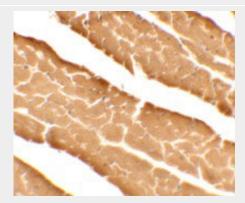
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## **DDA Antibody - Images**

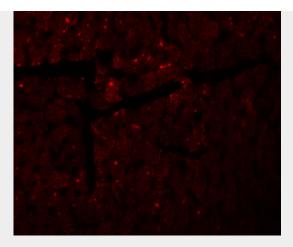


Western blot analysis of DDA1 in mouse heart tissue lysate with DDA1 antibody at 1  $\mu$ g/mL in (A) the absence and (B) the presence of blocking peptide



Immunohistochemistry of DDA1 in mouse heart tissue with DDA1 antibody at 5  $\mu$ g/mL.





Immunofluorescence of DDA1 in mouse heart tissue with DDA1 antibody at 20 µg/mL.

#### DDA Antibody - Background

DDA Antibody: DDA1 (DET1 and DDB1 associated 1), along with DET1 and DDB1 and a member of the UBE2E group of canonical ubiquitin-conjugating enzymes, comprise DDD-E2 complexes, which interact with multiple ubiquitin E3 ligases. One of these E3 ligases is Cul4-containing E3 ligase complex CRL4. Cells depleted of DDA1 spontaneously accumulate double-stranded DNA breaks in a similar fashion as Cul4A-, Cul4B-, or WDR23-depleted cells, suggesting that DDA1 interacts with the CRL4 complex and may be involved in the ubiquitination and subsequent proteasomal degradation of target proteins.

#### **DDA Antibody - References**

Pick E, Lau O, Tsuge T, et al. Mammalian DET1 regulates Cul4A activity and forms stable complexes with E2 ubiquitin-conjugating enzymes. Mol. Cell. Biol. 2007; 27:4708-19. Olma MH, Roy M, Le Bihan T, et al. An interaction network of the mammalian COP9 signalsome identifies Dda1 as a core subunit of multiple Cul4-based E3 ligases. J. Cell Sci. 2009; 122:1035-44