

**WDR5 Antibody**  
Catalog # ASC11477**Specification****WDR5 Antibody - Product Information**

Application	WB, ICC, IF
Primary Accession	<a href="#">P61964</a>
Other Accession	<a href="#">NP_060058</a> , <a href="#">16554627</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	WDR5 antibody can be used for detection of WDR5 by Western blot at 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 5 µg/mL.

**WDR5 Antibody - Additional Information**Gene ID **11091****Target/Specificity**

WDR5; WDR5 antibody is human specific. WDR5 antibody is predicted to not cross-react with other WDR family members.

**Reconstitution & Storage**

WDR5 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**

WDR5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**WDR5 Antibody - Protein Information**

Name WDR5

Synonyms BIG3

**Function**

Contributes to histone modification (PubMed: [16600877](http://www.uniprot.org/citations/16600877) target="\_blank">16600877</a>, PubMed: [16829960](http://www.uniprot.org/citations/16829960) target="\_blank">16829960</a>, PubMed: [19103755](http://www.uniprot.org/citations/19103755) target="\_blank">19103755</a>, PubMed: [19131338](http://www.uniprot.org/citations/19131338) target="\_blank">19131338</a>, PubMed: [19556245](http://www.uniprot.org/citations/19556245) target="\_blank">19556245</a>, PubMed: [20018852](http://www.uniprot.org/citations/20018852) target="\_blank">20018852</a>). May position the N-terminus of histone H3 for efficient trimethylation at 'Lys-4' (PubMed: [16829960](http://www.uniprot.org/citations/16829960))

target="\_blank">16829960</a>). As part of the MLL1/MLL complex it is involved in methylation and dimethylation at 'Lys-4' of histone H3 (PubMed:<a href="http://www.uniprot.org/citations/19556245" target="\_blank">19556245</a>). H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation (PubMed:<a href="http://www.uniprot.org/citations/18840606" target="\_blank">18840606</a>). As part of the NSL complex it may be involved in acetylation of nucleosomal histone H4 on several lysine residues (PubMed:<a href="http://www.uniprot.org/citations/19103755" target="\_blank">19103755</a>, PubMed:<a href="http://www.uniprot.org/citations/20018852" target="\_blank">20018852</a>). May regulate osteoblasts differentiation (By similarity). In association with RBBP5 and ASH2L, stimulates the histone methyltransferase activities of KMT2A, KMT2B, KMT2C, KMT2D, SETD1A and SETD1B (PubMed:<a href="http://www.uniprot.org/citations/21220120" target="\_blank">21220120</a>, PubMed:<a href="http://www.uniprot.org/citations/22266653" target="\_blank">22266653</a>).

### Cellular Location

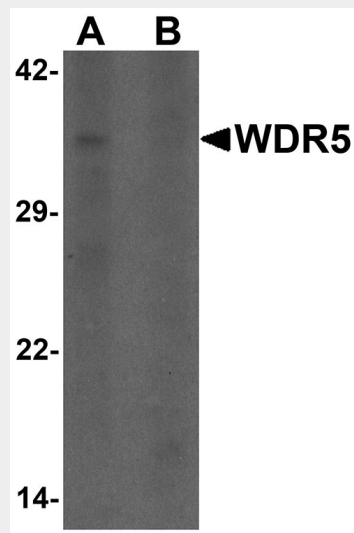
Nucleus

### WDR5 Antibody - 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](#)

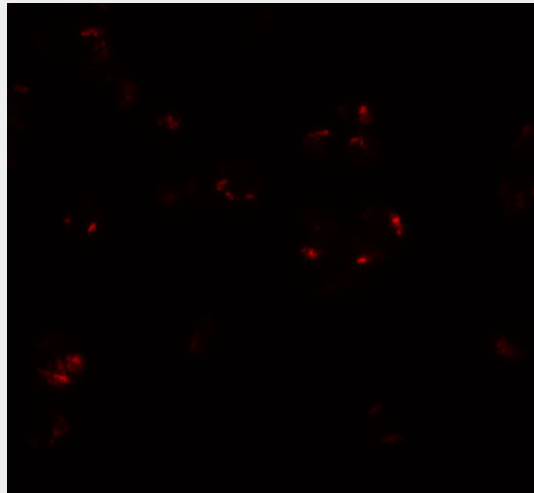
### WDR5 Antibody - Images



Western blot analysis of WDR5 in 293 cell lysate with WDR5 antibody at 1  $\mu$ g/ml in (A) the absence and (B) the presence of blocking peptide.



Immunocytochemistry of WDR5 in 293 cells with WDR5 antibody at 5 µg/mL.



Immunofluorescence of WDR5 in 293 cells with WDR5 antibody at 20 µg/mL.

### **WDR5 Antibody - Background**

WDR5 Antibody: WD repeat domain 5 (WDR5) is a member of the WD repeat protein family, which is involved in a variety of cellular processes, including cell cycle progression, signal transduction, apoptosis, and gene regulation. WDR5, also known as BIG-3, is expressed in the developing growth plate, accelerates chondrocyte and osteoblast differentiation *in vitro*, and regulates osteoblast differentiation during embryonic bone development. WDR5 interacts with the pluripotency factor Oct4/POU5F1 and is required for the efficient formation of induced pluripotent stem (iPS) cells.

### **WDR5 Antibody - References**

- Smith TF, Gaitatzes C, Saxena K, et al. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 1999; 24:181-5.
- Gori F and Demay MB. BIG-3, a novel WD-40 repeat protein, is expressed in the developing growth plate and accelerates chondrocyte differentiation *in vitro*. *Endocrinology* 2004; 145:1050-4.
- Gori F, Friedman LG, and Demay MB. Wdr5, a WD-40 protein, regulates osteoblast differentiation during embryonic bone development. *Dev. Biol.* 2006; 295:498-506.
- Ang YS, Tsai SY, Lee DF, et al. Wdr5 mediates self-renewal and reprogramming via the embryonic stem cell core transcriptional network. *Cell* 2011; 145:183-97.