10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

WDR5 Antibody

Catalog # ASC11477

Product Information

Application	WB, IF, ICC, E
Primary Accession	P61964
Other Accession	NP_060058, 16554627
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	36588
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	WDR5 antibody can be used for detection of WDR5 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 5 g/mL. For immunofluorescence start at 5 g/mL.

Additional Information

Gene ID	11091
Other Names	WD repeat-containing protein 5, BMP2-induced 3-kb gene protein, WDR5, BIG3
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℃ for three months and -20℃, 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.

Protein Information

Name	WDR5
Synonyms	BIG3
Function	Contributes to histone modification (PubMed: 16600877, PubMed:16829960, PubMed:19103755, PubMed:19131338, PubMed:19556245, PubMed:20018852). May position the N-terminus of histone H3 for efficient trimethylation at 'Lys-4' (PubMed:16829960). As part of the MLL1/MLL complex it is involved in methylation and dimethylation at 'Lys-4' of histone H3 (PubMed:19556245). H3 'Lys-4' methylation represents a specific tag for

epigenetic transcriptional activation (PubMed:18840606). As part of the NSL complex it may be involved in acetylation of nucleosomal histone H4 on several lysine residues (PubMed:19103755, PubMed:20018852). 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:21220120, PubMed:22266653).

Cellular Location Nucleus

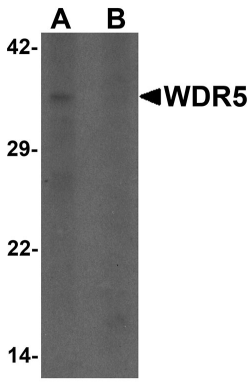
Background

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.

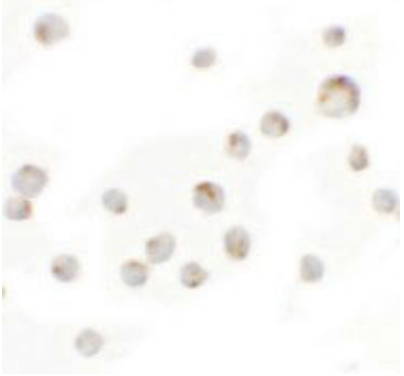
References

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.

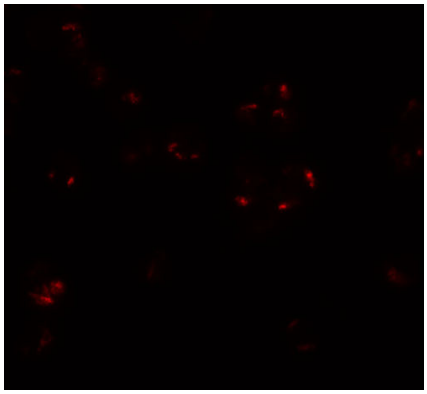
Images



Western blot analysis of WDR5 in 293 cell lysate with WDR5 antibody at 1 µg/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.