

## PRODUCT INFORMATION

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**Product name :** PRDM6 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to PRDM6

**Immunogen :** 3 synthetic peptides (human) conjugated to KLH

**Reacts with :** Human, Mouse

**Tested applications :** ELISA, WB and IF

## GENE INFORMATION

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**Gene Symbol :** PRDM6

**Gene Name :** PR domain containing 6

**Ensembl ID :** ENSG00000061455

**Entrez GeneID :** 93166

**GenBank Accession number :** AF272898

**Swiss-Prot :** Q9NQX0

**Molecular weight of PRDM6 :** 64.4 & 46.6kDa

**Function :** Putative histone methyltransferase that acts as a transcriptional repressor of smooth muscle gene expression. Promotes the transition from differentiated to proliferative smooth muscle by suppressing differentiation and maintaining the proliferative potential of vascular smooth muscle cells. Also plays a role in endothelial cells by inhibiting endothelial cell proliferation, survival and differentiation. It is unclear whether it has histone methyltransferase activity in vivo. According to some authors, it does not act as a histone methyltransferase by itself and represses transcription by recruiting EHMT2/G9a. According to others, it possesses histone methyltransferase activity when associated with other proteins and specifically methylates 'Lys-20' of histone H4 in vitro. 'Lys-20' methylation represents a specific tag for epigenetic transcriptional repression.

**Expected subcellular localization :** Nucleus

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/900 is determined. Appropriate specificity controls were run.
- **WB (cell lysate):** 1/250.
- **IF:** 1/250.

**Optimal dilutions/concentration should be determined by the end user.**

**Raised in :** Rabbit

**Clonality :** Polyclonal

**Isotype :** IgG

**Purity :** Crude serum, Final bleed

**Storage buffer :** 50% glycerol containing a final concentration of 0.1% BSA and 0.01% Thimerosal.

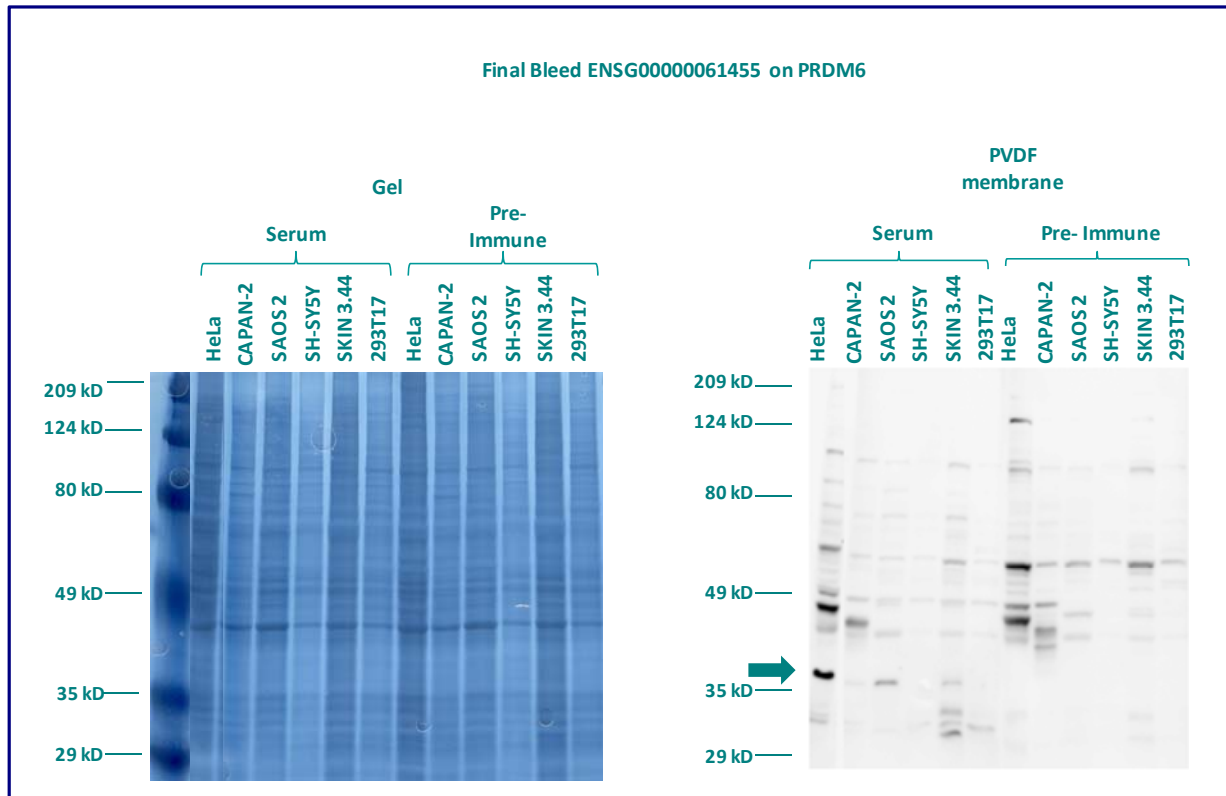
**Form :** Liquid

**Storage instruction :** Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

## WESTERN BLOT ANALYSIS ON CELL LYSATES

The final bleed serum ENSG00000061455 has been tested at a concentration of 1/500 on total protein extract of various cell lines (HeLa, CAPAN-2, SAOS 2, SH-SY5Y, SKIN 3.44 & 293T17).

Molecular weight of PRDM6 isoforms : 64.4 & 46.6kDa



**Gel concentration: 10%**

**Blocking: in 5% non-fat milk-PBST solution**

**1<sup>st</sup> Antibody: The antibodies are diluted in blocking buffer.**

- Dilute the crude serum ENSG00000089116 at 1: 250  
60 minutes of incubation

**2<sup>nd</sup> Antibody: The antibody is diluted in blocking buffer.**

- Dilute the anti-Rabbit IgG HRP conjugated at 1/10000  
60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

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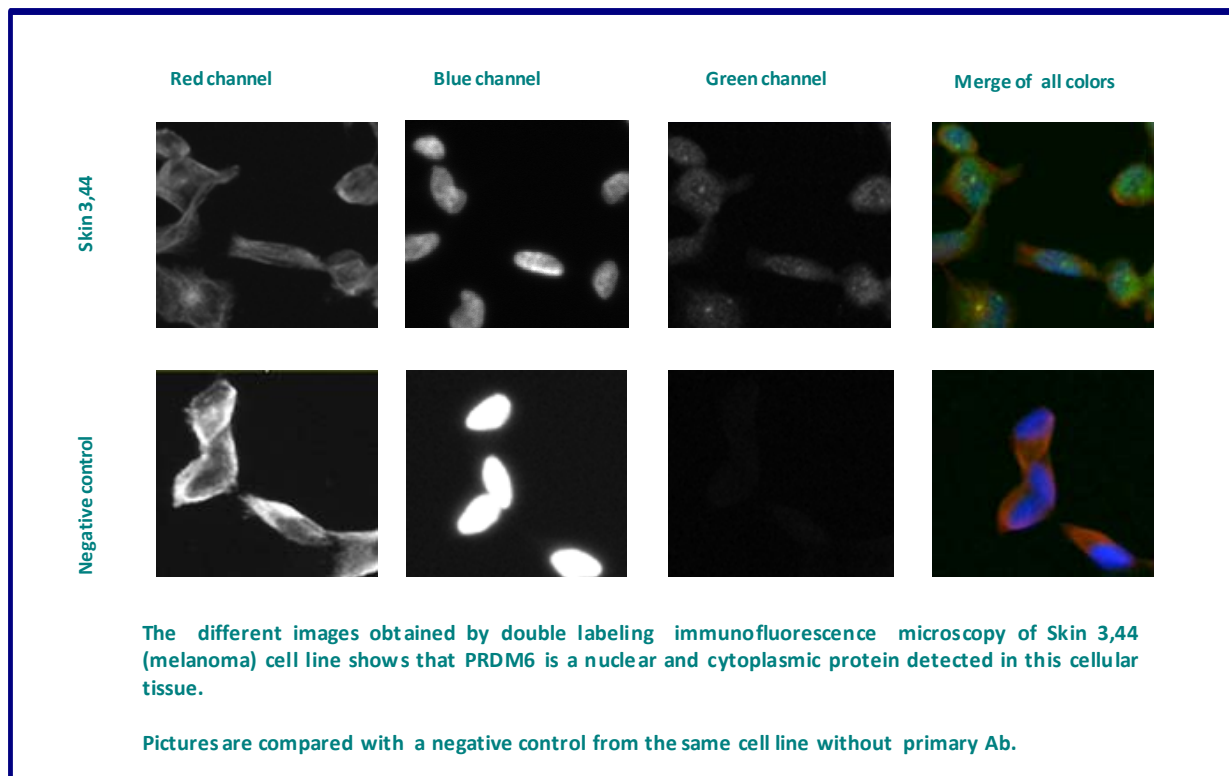
Immunofluorescence analysis of Putative histone-lysine N-methyltransferase PRDM6 (PRDM6) expression in 5 cells lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y). The crude serum ENSG00000061455 has been tested at 1/500.

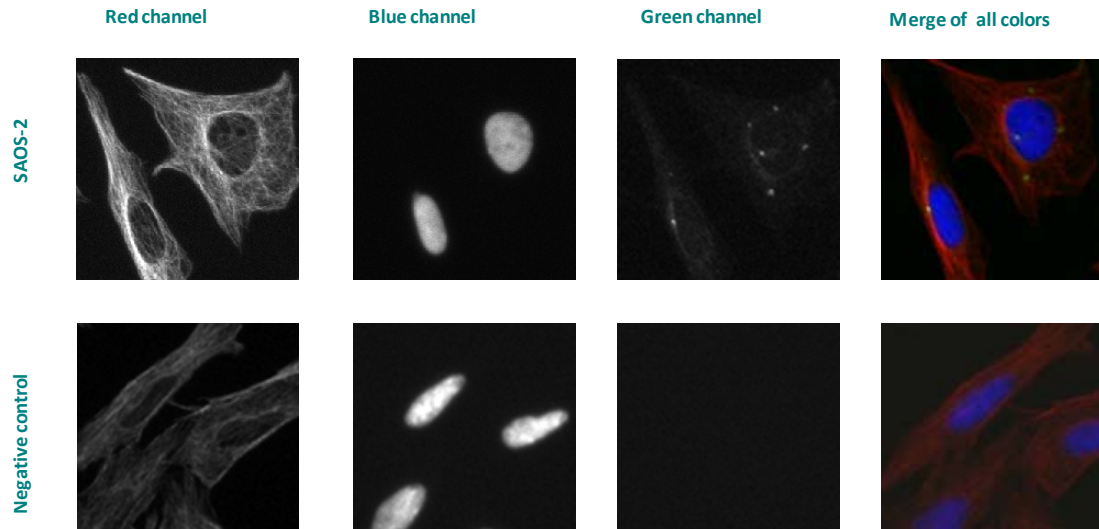
**Red staining** : cytoskeleton (microtubules/ $\alpha$ -tubuline)

**Blue staining** : nucleus (Hoechst)

**Green staining** : anti- PRDM6 antibody

**Expected subcellular location** : Nucleus





The different images obtained by double labeling immunofluorescence microscopy of SAOS-2 (osteosarcoma) cell line shows that PRDM6 is a nuclear and cytoplasmic protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.

Remaining cell lines tested gave a positive result with a nuclear and cytoplasmic distribution.