TECHNICAL DATA SHEET

PRODUCT NAME DNMT3B polyclonal antibody		
Other names: Dnmt3b, DNA MTase HsaIIIB, M.HsaIIIB		
Cat. No. pAb-076-005	**Type:** Polyclonal **ChIP grade**	**Size:** 5 µg/50 µl
Lot #: A16-0041	**Source:** Rabbit	**Concentration:** 0.1 µg/µl

Description: Polyclonal antibody raised in rabbit against mouse DNMT3B (DNA methyltransferase 3B), using a KLH-conjugated synthetic peptide containing a sequence from the N-terminal part of the protein.

Specificity: Mouse, Human: positive
Other species: not tested

Applications	Suggested dilution	References
ELISA	1:100	Fig 1
ChIP	0.2 µg per ChIP	Fig 2

Purity: Affinity purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300.

Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Last data sheet update: March 11, 2010

Target description
DNMT3B (UniProtKB/Swiss-Prot entry Q9UBC3) catalyses the genome wide de novo methylation of CpG residues, which regulates gene expression. DNMT3B is essential for development. DNA methylation on CpG residues is coordinated with methylation of histones. Six different isoforms of DNMT3B, produced by alternative splicing, exist although isoforms 4 and 5 may not be functional due to the absence of two conserved methyltransferase motifs.

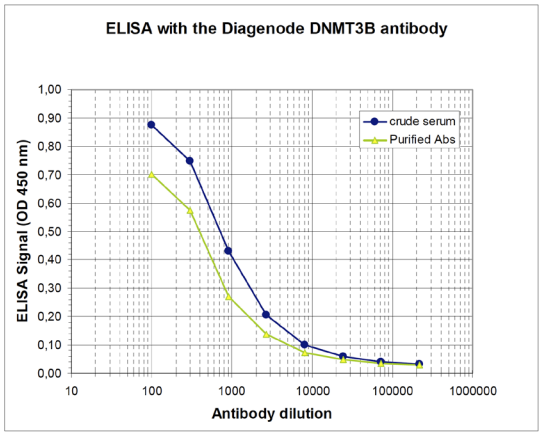
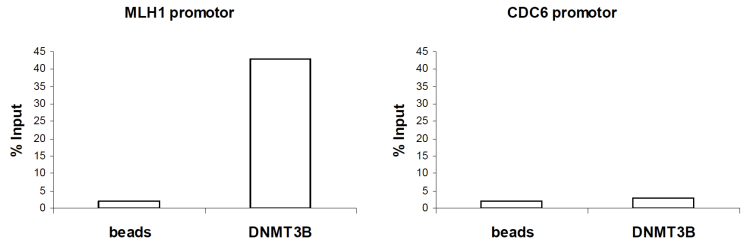


Figure 1

Determination of the antibody titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of Diagenode antibody directed against mouse DNMT3B (cat# pAb-076-005) and crude serum in antigen coated wells. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:900.

Figure 2



ChIP analysis

ChIP assays were performed using the human osteosarcoma cell line U2OS, the Diagenode antibody directed against DNMT3B (cat# pAb-076-005) and optimized PCR primer sets. Sheared chromatin from 1 million cells and 0.2 µg of DNMT3B antibody or beads only were used per ChIP experiment. The IP'd DNA was analysed by qPCR with primers for the promoters of MLH1, used as a positive control, and of CDC6, used as a negative control. Figure 2 shows the recovery expressed as a % of the input DNA (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).