

# YY1 Rabbit mAb

Catalog # AP76273

### **Product Information**

ApplicationWB, IPPrimary AccessionP25490

**Reactivity** Human, Mouse, Rat

**Host** Rabbit

**Clonality** Monoclonal Antibody

Calculated MW 44713

### **Additional Information**

**Gene ID** 7528

Other Names YY1

**Dilution** WB~~1/500-1/1000 IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

#### **Protein Information**

Name YY1

Synonyms INO80S

**Function** Multifunctional transcription factor that exhibits positive and negative

control on a large number of cellular and viral genes by binding to sites

overlapping the transcription start site (PubMed:15329343,

PubMed: 17721549, PubMed: 24326773, PubMed: 25787250). Binds to the consensus sequence 5'-CCGCCATNTT-3'; some genes have been shown to contain a longer binding motif allowing enhanced binding; the initial CG dinucleotide can be methylated greatly reducing the binding affinity

(PubMed: 15329343, PubMed: 17721549, PubMed: 24326773,

PubMed:25787250). The effect on transcription regulation is depending upon the context in which it binds and diverse mechanisms of action include direct activation or repression, indirect activation or repression via cofactor recruitment, or activation or repression by disruption of binding sites or conformational DNA changes (PubMed:15329343, PubMed:17721549, PubMed:24326773, PubMed:25787250). Its activity is regulated by transcription factors and cytoplasmic proteins that have been shown to abrogate or completely inhibit YY1- mediated activation or repression (PubMed:15329343, PubMed:17721549, PubMed:24326773,

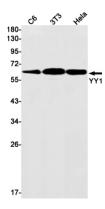
PubMed:<u>25787250</u>). For example, it acts as a repressor in absence of adenovirus E1A protein but as an activator in its presence (PubMed:<u>1655281</u>).

Acts synergistically with the SMAD1 and SMAD4 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:15329343). Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (PubMed:15329343). May play an important role in development and differentiation. Proposed to recruit the PRC2/EED-EZH2 complex to target genes that are transcriptional repressed (PubMed:11158321). Involved in DNA repair (PubMed:18026119, PubMed:28575647). In vitro, binds to DNA recombination intermediate structures (Holliday junctions). Plays a role in regulating enhancer activation (PubMed:28575647). Recruits the PR-DUB complex to specific gene-regulatory regions (PubMed:20805357).

#### **Cellular Location**

Nucleus matrix Note=Associated with the nuclear matrix.

## **Images**



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