

**YY1 Antibody**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AW5192**

**Specification**

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**YY1 Antibody - Product Information**

Application	WB, IHC,E
Primary Accession	<a href="#">P25490</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	H=45 KDa
Isotype	IgG2a
Antigen Source	Human

**YY1 Antibody - Additional Information**

**Gene ID** 7528

**Antigen Region**  
1-404

**Other Names**

YY1;INO80S; Transcriptional repressor protein YY1; Transcriptional repressor protein YY1; Delta transcription factor; Transcriptional repressor protein YY1; INO80 complex subunit S; Transcriptional repressor protein YY1; NF-E1; Transcriptional repressor protein YY1; Yin and yang 1

**Dilution**

WB~~1:1000  
IHC~~1:25

**Target/Specificity**

Purified His-tagged YY1 protein was used to produced this monoclonal antibody.

**Format**

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

YY1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**YY1 Antibody - 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:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>, PubMed:<a href="http://www.uniprot.org/citations/17721549" target="\_blank">17721549</a>, PubMed:<a href="http://www.uniprot.org/citations/24326773" target="\_blank">24326773</a>, PubMed:<a href="http://www.uniprot.org/citations/25787250" target="\_blank">25787250</a>). 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:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>, PubMed:<a href="http://www.uniprot.org/citations/17721549" target="\_blank">17721549</a>, PubMed:<a href="http://www.uniprot.org/citations/24326773" target="\_blank">24326773</a>, PubMed:<a href="http://www.uniprot.org/citations/25787250" target="\_blank">25787250</a>). 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:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>, PubMed:<a href="http://www.uniprot.org/citations/17721549" target="\_blank">17721549</a>, PubMed:<a href="http://www.uniprot.org/citations/24326773" target="\_blank">24326773</a>, PubMed:<a href="http://www.uniprot.org/citations/25787250" target="\_blank">25787250</a>). 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:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>, PubMed:<a href="http://www.uniprot.org/citations/17721549" target="\_blank">17721549</a>, PubMed:<a href="http://www.uniprot.org/citations/24326773" target="\_blank">24326773</a>, PubMed:<a href="http://www.uniprot.org/citations/25787250" target="\_blank">25787250</a>). For example, it acts as a repressor in absence of adenovirus E1A protein but as an activator in its presence (PubMed:<a href="http://www.uniprot.org/citations/1655281" target="\_blank">1655281</a>). Acts synergistically with the SMAD1 and SMAD4 in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (PubMed:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>). Binds to SMAD binding elements (SBEs) (5'-GTCT/AGAC-3') within BMP response element (BMPRE) of cardiac activating regions (PubMed:<a href="http://www.uniprot.org/citations/15329343" target="\_blank">15329343</a>). 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:<a href="http://www.uniprot.org/citations/11158321" target="\_blank">11158321</a>). Involved in DNA repair (PubMed:<a href="http://www.uniprot.org/citations/18026119" target="\_blank">18026119</a>, PubMed:<a href="http://www.uniprot.org/citations/28575647" target="\_blank">28575647</a>). In vitro, binds to DNA recombination intermediate structures (Holliday junctions). Plays a role in regulating enhancer activation (PubMed:<a href="http://www.uniprot.org/citations/28575647" target="\_blank">28575647</a>). Recruits the PR-DUB complex to specific gene-regulatory regions (PubMed:<a href="http://www.uniprot.org/citations/20805357" target="\_blank">20805357</a>).

### Cellular Location

Nucleus matrix Note=Associated with the nuclear matrix.

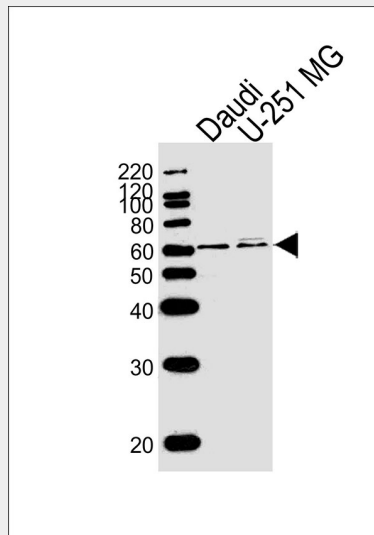
## YY1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

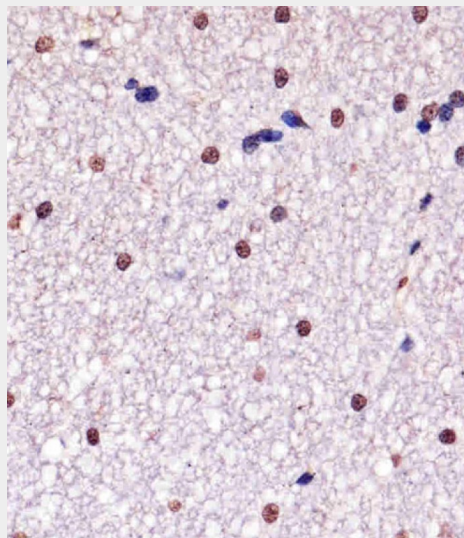
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

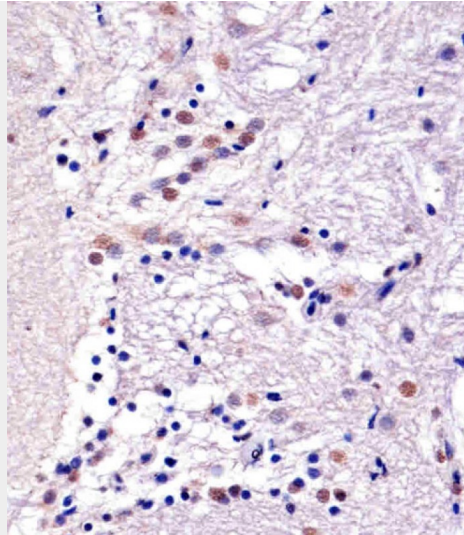
### YY1 Antibody - Images



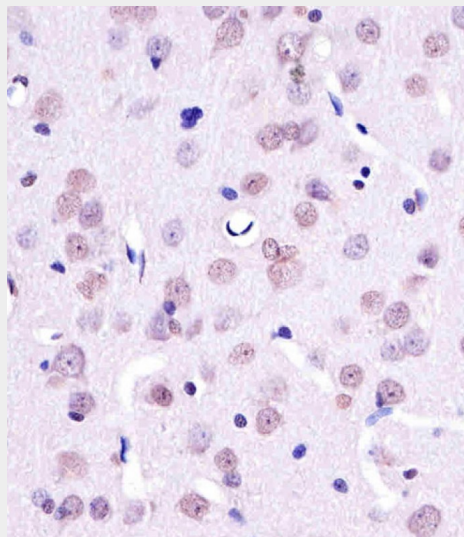
Western blot analysis of lysates from Daudi,U-251 MG cell line (from left to right), using YY1 Antibody (Center)(Cat. #AW5192). AW5192 was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.



AW5192 staining YY1 in Monkey brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AW5192 staining YY1 in Zebra fish brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. An undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AW5192 staining YY1 in Rat brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. An undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

### **YY1 Antibody - Background**

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. 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. 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. Its activity is regulated by transcription factors and

cytoplasmic proteins that have been shown to abrogate or completely inhibit YY1-mediated activation or repression. For example, it acts as a repressor in absence of adenovirus E1A protein but as an activator in its presence. May play an important role in development and differentiation. Proposed to recruit the PRC2/EED-EZH2 complex to target genes that are transcriptionally repressed. Involved in DNA repair. In vitro, binds to DNA recombination intermediate structures (Holliday junctions).

Proposed core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication and probably DNA repair; proposed to target the INO80 complex to YY1-responsive elements.

### **YY1 Antibody - References**

Dephoure N., et al. Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).

Kim J., et al. Genomics 93:152-158(2009).

Burkard T.R., et al. BMC Syst. Biol. 5:17-17(2011).

Chen L., et al. J. Biol. Chem. 286:11283-11289(2011).

Mayya V., et al. Sci. Signal. 2:RA46-RA46(2009).