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YY1 Antibody (clone 2C4)

Mouse Monoclonal Antibody
Catalog # ALS14168

Specification

YY1 Antibody (clone 2C4) - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	P25490
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**45kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **IF~~1:50~200** **E~~N/A**

YY1 Antibody (clone 2C4) - Additional Information

Gene ID 7528

Other Names
Transcriptional repressor protein YY1, Delta transcription factor, INO80 complex subunit S, NF-E1, Yin and yang 1, YY-1, YY1, INO80S

Target/Specificity
Human YY1

Reconstitution & Storage
For long term storage -20°C is recommended.

Precautions
YY1 Antibody (clone 2C4) is for research use only and not for use in diagnostic or therapeutic procedures.

YY1 Antibody (clone 2C4) - 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:25787250). For example, it acts as a repressor in absence of adenovirus E1A protein but as an activator in its presence (PubMed:1655281). 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.

YY1 Antibody (clone 2C4) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

YY1 Antibody (clone 2C4) - Images

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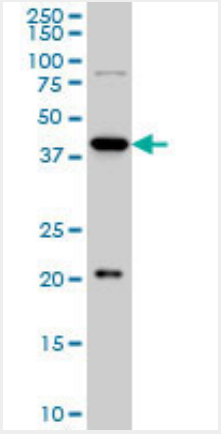
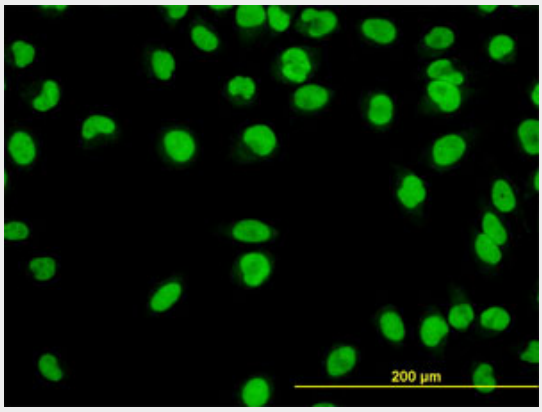
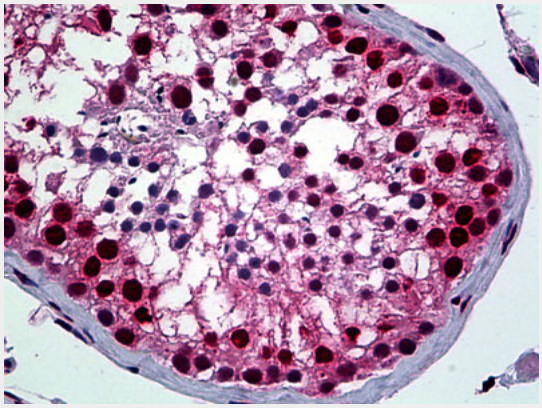


YY1 monoclonal antibody clone 2C4 Western blot of YY1 expression in HeLa NE.



Immunofluorescence of monoclonal antibody to YY1 on HeLa cell. [antibody concentration 10 ug/ml]



Anti-YY1 antibody IHC of human testis.

YY1 Antibody (clone 2C4) - 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. 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. May play an important role in development and differentiation. Proposed to recruit the PRC2/EED-EZH2 complex to target genes that are transcriptional repressed. Involved in DNA repair. In vitro, binds to DNA recombination intermediate structures (Holliday junctions).

YY1 Antibody (clone 2C4) - References

Shi Y.,et al.Cell 67:377-388(1991).
Park K.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:9804-9808(1991).
Whitson R.H.,et al.Submitted (JUL-1992) to the EMBL/GenBank/DDBJ databases.
McNeil S.,et al.J. Cell. Biochem. 68:500-510(1998).
Kalenik J.L.,et al.Nucleic Acids Res. 25:843-849(1997).