

Recombinant YY1 protein

Catalog No: 81119, 81819

Lot No: 02418001

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.3 µg/µl

Source: Human

Buffer Contents: Recombinant YY1 protein is supplied at a concentration of 0.3 µg/µl in 25 mM HEPES pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5 mM TCEP.

Background: YY1 (YY1 Transcription Factor, also known as INO80S) is a ubiquitously distributed transcription factor belonging to the GLI-Kruppel class of zinc finger proteins. YY1 transcription factor, repressor/activator (Yin Yang) protein, is a 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. It 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. YY1 is also involved in DNA repair. *In vitro*, it binds to DNA recombination intermediate structures (Holliday junctions).

Protein Details: Recombinant human YY1 protein was expressed in a baculovirus expression system as the full length protein (accession number NP_003394.1) with an N-terminal FLAG tag. The molecular weight of the protein is 46 kDa.

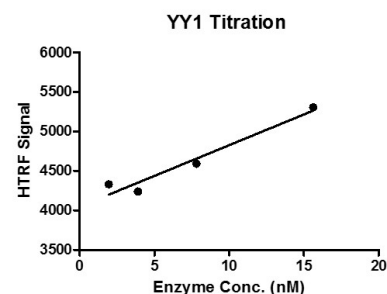
Application Notes: This protein is suitable for use in protein-protein interaction, *in vitro* transcription assay, binding assay.

Binding Assay Condition: 1 µM oligo ds DNA (DNA sequence 5'-GCGCCGCCATCTTCAT-3') was incubated with different concentrations of YY1 protein in binding system for 1 hour, then FLAG antibody and SA-XL665 mixture was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



Recombinant YY1 protein gel
7.5% SDS-PAGE Coomassie staining
MW: 46 kDa
Purity: >85%



HTRF assay for YY1 activity

1 µM oligo dsDNA was incubated with different concentrations of YY1 protein in for 1 hr, then FLAG antibody and SA-XL665 mixture was added to each reaction system and incubated for 30 min. HTRF assay was used for detection.