

## Active Recombinant Human DR1, GST-tagged

**Cat. No.** DR1-30H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Recombinant Human DR1, GST-tagged protein is isolated from an E. coli strain that carries the coding sequence of the human Dr1 under the control of a T7 promoter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | This gene encodes a TBP- (TATA box-binding protein) associated phosphoprotein that represses both basal and activated levels of transcription. The encoded protein is phosphorylated in vivo and this phosphorylation affects its interaction with TBP. This protein contains a histone fold motif at the amino terminus, a TBP-binding domain, and a glutamine- and alanine-rich region. The binding of DR1 repressor complexes to TBP-promoter complexes may establish a mechanism in which an altered DNA conformation, together with the formation of higher order complexes, inhibits the assembly of the preinitiation complex and controls the rate of RNA polymerase II transcription. |
| <b>Bio-activity</b>     | 1 unit equals 1 nanogram of purified protein. 100 units (ng) are sufficient for a protein-protein interaction assay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Mass</b>   | 46.2 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>           | Greater than 95% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applications</b>     | It can be applied in protein-protein interactions assays.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                            |                                                                                                                                                                                                                                                        |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage</b>             | Stored at -70°C before use. Avoid repeated freeze thaw cycles.                                                                                                                                                                                         |
| <b>Storage Buffer</b>      | 20 mM Tris-Cl (pH 8.0), 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA                                                                                                                                                                             |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                        |
| <b>Gene Name</b>           | DR1 down-regulator of transcription 1, TBP-binding (negative cofactor 2) [ Homo sapiens ]                                                                                                                                                              |
| <b>Official Symbol</b>     | DR1                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>            | DR1; down-regulator of transcription 1, TBP-binding (negative cofactor 2); protein Dr1; NC2; NC2 BETA; negative cofactor 2-beta; TATA-binding protein-associated phosphoprotein; NC2-BETA;                                                             |
| <b>Gene ID</b>             | 1810                                                                                                                                                                                                                                                   |
| <b>mRNA Refseq</b>         | NM_001938                                                                                                                                                                                                                                              |
| <b>Protein Refseq</b>      | NP_001243019                                                                                                                                                                                                                                           |
| <b>MIM</b>                 | 123811                                                                                                                                                                                                                                                 |
| <b>UniProt ID</b>          | P15336                                                                                                                                                                                                                                                 |
| <b>Chromosome Location</b> | 2q32                                                                                                                                                                                                                                                   |
| <b>Pathway</b>             | ATF-2 transcription factor network, organism-specific biosystem; Activated TLR4 signalling, organism-specific biosystem; Activation of the AP-1 family of transcription factors, organism-specific biosystem; Amphetamine addiction, organism-specific |

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biosystem; Amphetamine addiction, conserved biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem;

# Function

DNA binding; RNA polymerase II activating transcription factor binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription; RNA polymerase II distal enhancer sequence-specific DNA binding; RNA polymerase II transcription factor binding transcription factor activity; cAMP response element binding; cAMP response element binding protein binding; chromatin binding; metal ion binding; protein binding; protein dimerization activity; protein kinase binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity; sequence-specific DNA binding transcription factor activity; sequence-specific distal enhancer binding RNA polymerase II transcription factor activity; transcription coactivator activity; zinc ion binding;

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