Anti-Human DR1, monoclonal

Alternate Names: Protein Dr1

Cat. No. 14-045

FOR RESEARCH USE ONLY NOT FOR USE IN HUMANS

PRODUCT DESCRIPTION

UniProt Summary

UniProt
Primary Accession: Q01658

The association of the DR1/DRAP1 heterodimer with TBP results in a functional repression of both activated and basal transcription of class II genes. This interaction precludes the formation of a transcription-competent complex by inhibiting the association of TFIIA and/or TFIIB with TBP. Can bind to DNA on its own. Component of the ATAC complex, a complex with histone acetyltransferase activity on histones H3 and H4. Heterodimer with DRAP1. DR1 exists in solution as a homotetramer that dissociates during interaction with TBP and then, after complexing with TBP, reassociates at a slow rate, to reconstitute the tetramer. Interacts with NFIL3. Component of the ADA2A-containing complex (ATAC),...

Physical Characteristics

Quantity: 1 ml (culture supernatant) or 100ug at 1mg/ml (purified)

Format: culture supernatant or purified material

Host/Isotype: mouse IgG2c

Clonality: monoclonal; ID R594.1.1A12

Formulation: culture supernatant contains 0.02% NaN3. Purified material contains 30% glycerol, PBS and 0.02% NaN3

Specificity: monospecific for human DR1 ; see "Microarray Analysis" below

Reactivity: human; not tested for cross reactivity in other species

Stability/Storage: 12 months long term: -20°C; short term: 4°C; avoid freeze-thaw cycles; aliquot as required

Handling Notes: small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap

Tested Research Applications

- **Western Immunoblotting - PASS by SOP**
- **Immunoprecipitation - PASS by SOP**

Antibody tested as purified IgG. Optimal dilution to be determined by user.

Quality Assurance

Notes:

1. Please refer to the SOP manual (click here) to for detailed explanation of the experimental setup and thresholds used to evaluate the results shown below.
2. Predicted MW of the target protein expressed in the western immunoblotting (WB) and immprecipitation (IP) experiment is **19.47kDa** and the three fusion tags (venus, 3xFLAG, V5) adds another **38.7kDa** to this protein. Therefore the protein is expected to migrate **~58.17kDa** in a denatured SDS-PAGE gel.
3. See results below for any applicable cautionary notes.

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Lot-specific COA version tracker: v1.0.0

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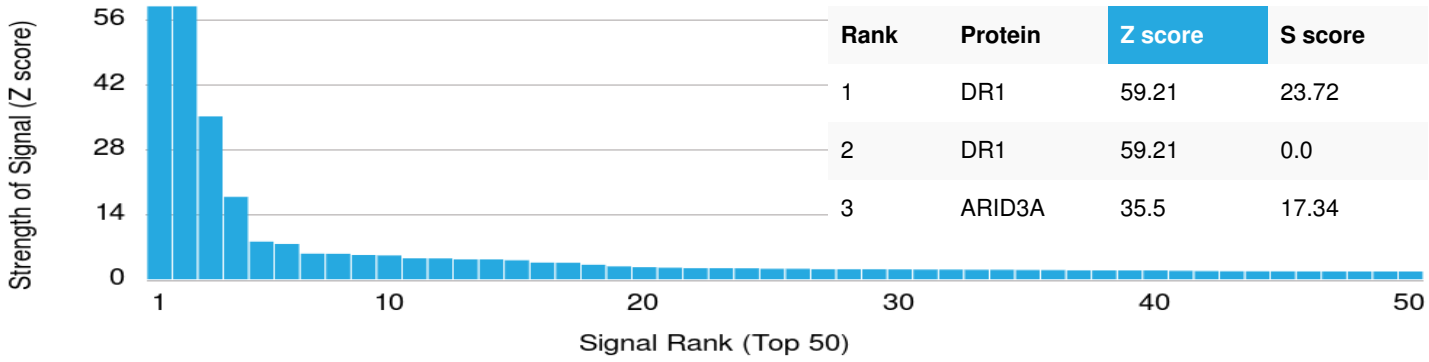
Quality Assurance (HuProt™ Array)



Rank	Protein	Z score	S score
1	DR1	59.21	23.72
2	DR1	59.21	0.0
3	ARID3A	35.5	17.34

About Z and S Scores: The z-score represents the strength of a signal that a mAb (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SDs) above the mean value of all signals generated on that array. To be considered a definite binding event between a mAb and a protein target, the z-score must have a value of at least 2.5 (SDs above the mean). The s-score represents the relative target specificity of a mAb, and is the difference (also in units of SDs) between the z-score a mAb generates upon binding to one protein and the next highest z-score that the mAb generates against another protein. For example, if a mAb binds to protein X with an z-score of 43 and to protein Y with an z-score of 14, then the s-score for the binding of that mAb to protein X is equal to 29.

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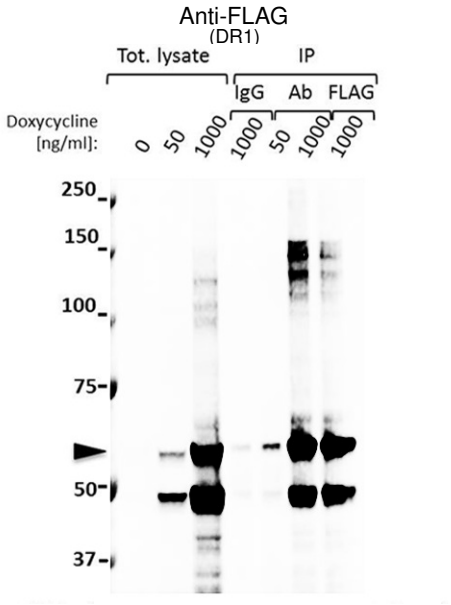
PRODUCT DESCRIPTION

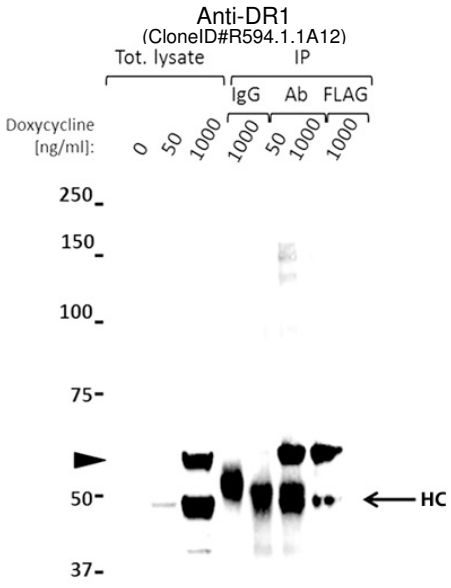
Quality Assurance (continued)

IMMUNOPRECIPITATION - Predicted MW 58.17kDa



Tet-ON HeLa cells were transfected with construct encoding DR1 (NM_001938.2) with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried out using 5µg of either IgG, CDI mAb Anti-DR1 (cloneID# R594.1.1A12) or 1 µg of FLAG-M2 (Sigma). Immunoblotting was performed using rabbit Anti-FLAG (1:1000, Cell Signaling #2368). We observe that such fusion proteins are generally expressed as a doublet, with the upper band corresponding to the expected size of the DR1 with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags.

WESTERN BLOT - Predicted MW 58.17kDa



Tet-ON HeLa cells were transfected with construct encoding DR1 (NM_001938.2) with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags. under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried out using 5µg of either IgG, CDI mAb Anti-DR1 (cloneID# R594.1.1A12) or 1 µg of FLAG-M2 (Sigma). Immunoblotting was performed using 0.2µg/ml CDI mouse mAb Anti-DR1 (cloneID# R594.1.1A12). HC=Heavy chain.

Cautionary notes for IP and WB experiments:

1. Target protein runs substantially heavier or lighter than expected

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