

# DBR1 (3A7): sc-517060

## BACKGROUND

DBR1 (debranching enzyme homolog 1) is a 544 amino acid protein that localizes to the nucleus and belongs to the lariat debranching enzyme family. Functioning at an optimal pH of 7.0, DBR1 uses divalent metal cations to catalyze the cleavage of the 2'-5' phosphodiester linkage at the branch point of lariat intron pre-mRNAs, thereby converting the lariat structures to linear molecules that are subject to degradation. Via its catalytic activity, DBR1 facilitates ribonucleotide turnover and is thought to participate in retroviral (specifically HIV-1) replication. Human DBR1 shares 79% homology with its mouse counterpart, suggesting a conserved role between species. DBR1 is expressed as two alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 3q22.3.

## REFERENCES

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- Ye, Y., et al. 2005. DBR1 siRNA inhibition of HIV-1 replication. *Retrovirology* 2: 63.
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## CHROMOSOMAL LOCATION

Genetic locus: DBR1 (human) mapping to 3q22.3.

## SOURCE

DBR1 (3A7) is a mouse monoclonal antibody raised against amino acids 445-538 representing partial length DBR1 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

DBR1 (3A7) is recommended for detection of DBR1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DBR1 siRNA (h): sc-77921, DBR1 shRNA Plasmid (h): sc-77921-SH and DBR1 shRNA (h) Lentiviral Particles: sc-77921-V.

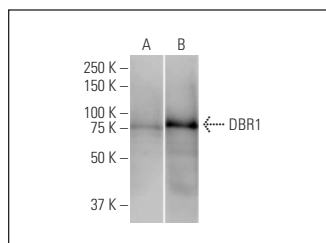
Molecular Weight of DBR1: 62 kDa.

Positive Controls: DBR1 transfected 293T whole cell lysate or Hep G2 nuclear extract: sc-364819.

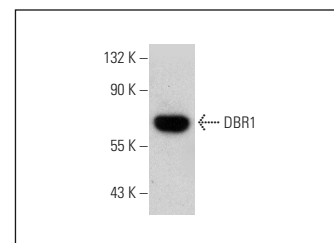
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



DBR1 (3A7): sc-517060. Western blot analysis of DBR1 expression in non-transfected (A) and DBR1 transfected (B) 293T whole cell lysates.



DBR1 (3A7): sc-517060. Western blot analysis of DBR1 expression in Hep G2 nuclear extract.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.