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# DUE-B (m): 293T Lysate: sc-126745

## BACKGROUND

DUE-B, also known as DTD1 (D-tyrosyl-tRNA deacylase 1) or HARS2, is a 209 amino acid protein that localizes to the cytoplasm and belongs to the DTD family. Expressed in several adult and fetal tissues with higher expression in ovary, spleen and testis, DUE-B functions to catalyze the hydrolysis of D-tyrosyl-tRNA(Tyr) into D-tyrosine and free tRNA(Tyr), an event that may serve as an important defense mechanism against D-tyrosine. Additionally, DUE-B is thought to play an important role in the S phase of the cell cycle, as well as in the initiation of DNA replication. Human DUE-B shares 94% sequence identity with its mouse counterpart, suggesting a conserved function between species. The gene encoding DUE-B maps to human chromosome 20, which houses over 600 genes and comprises nearly 2% of the human genome.

## REFERENCES

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5. Ghosh, M., Kemp, M., Liu, G., Ritz, M., Schepers, A. and Leffak, M. 2006. Differential binding of replication proteins across the human c-Myc replicator. *Mol. Cell. Biol.* 26: 5270-5283.
6. Kemp, M., Bae, B., Yu, J.P., Ghosh, M., Leffak, M. and Nair, S.K. 2007. Structure and function of the c-Myc DNA-unwinding element-binding protein DUE-B. *J. Biol. Chem.* 282: 10441-10448.

## CHROMOSOMAL LOCATION

Genetic locus: Dtd1 (mouse) mapping to 2 G1.

## PRODUCT

DUE-B (m): 293T Lysate represents a lysate of mouse DUE-B transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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

## APPLICATIONS

DUE-B (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive DUE-B antibodies. Recommended use: 10-20 µl per lane.

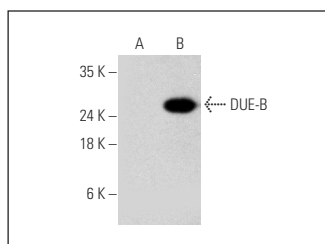
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DUE-B (D-7): sc-515087 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse DUE-B expression in DUE-B transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## 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™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



DUE-B (D-7): sc-515087. Western blot analysis of DUE-B expression in non-transfected: sc-117752 (A) and mouse DUE-B transfected: sc-126745 (B) 293T whole cell lysates.

## RESEARCH USE

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