

DUE-B (P-15): sc-85552

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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2. Meng, X., Chen, J., Yang, Q., Wang, S., Chao, Y., Ying, K., Xie, Y. and Mao, Y. 2002. Cloning and identification of a novel cDNA which may be associated with FKBP25. *Biochem. Genet.* 40: 303-310.
3. Casper, J.M., Kemp, M.G., Ghosh, M., Randall, G.M., Vaillant, A. and Leffak, M. 2005. The c-Myc DNA-unwinding element-binding protein modulates the assembly of DNA replication complexes *in vitro*. *J. Biol. Chem.* 280: 13071-13083.
4. Moaddel, R., Price, G.B., Juteau, J.M., Leffak, M. and Wainer, I.W. 2005. The synthesis and initial characterization of an immobilized DNA unwinding element binding (DUE-B) protein chromatographic stationary phase. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* 820: 197-203.

CHROMOSOMAL LOCATION

Genetic locus: DTD1 (human) mapping to 20p11.23; Dtd1 (mouse) mapping to 2 G1.

SOURCE

DUE-B (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DUE-B of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85552 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

DUE-B (P-15) is recommended for detection of DUE-B of mouse, rat and 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).

DUE-B (P-15) is also recommended for detection of DUE-B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DUE-B siRNA (h): sc-77189, DUE-B siRNA (m): sc-143190, DUE-B shRNA Plasmid (h): sc-77189-SH, DUE-B shRNA Plasmid (m): sc-143190-SH, DUE-B shRNA (h) Lentiviral Particles: sc-77189-V and DUE-B shRNA (m) Lentiviral Particles: sc-143190-V.

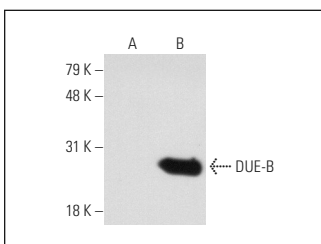
Molecular Weight of DUE-B: 24 kDa.

Positive Controls: DUE-B (m): 293T Lysate: sc-126745.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DUE-B (P-15): sc-85552. 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.



Try **DUE-B (D-7): sc-515087**, our highly recommended monoclonal alternative to DUE-B (P-15).