

VDUP1 (m2): 293T Lysate: sc-124550

BACKGROUND

The gene encoding vitamin D₃ upregulated protein 1 (VDUP1) is upregulated by 1,25(OH)₂D₃ in response to various stresses, including Ros, UV and heat shock. The transcription factor HSF may be involved in this regulation. VDUP1 also functions as a natural antagonist of TRX, and displays tumor-suppressive activity by inducing cell cycle arrest at the G₀/G₁ phase. The presence of VDUP1 is required for CD122 expression and natural killer (NK) cell maturation, but its effect is minimal during the development of T and B cells. The gene encoding human VDUP1 maps to chromosome 1q21, and its protein product shows ubiquitous expression in various tissues and localizes to the cytoplasm. VDUP1 may also be a useful therapeutic target for melanoma.

REFERENCES

- Chen, K.S., et al. 1994. Isolation and characterization of a novel cDNA from HL-60 cells treated with 1,25-dihydroxy vitamin D₃. *Biochim. Biophys. Acta* 1219: 26-32.
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- Junn, E., et al. 2000. Vitamin D₃ upregulated protein 1 mediates oxidative stress via suppressing the thioredoxin function. *J. Immunol.* 164: 6287-6295.
- Ludwig, D.L., et al. 2001. Cloning, genetic characterization, and chromosomal mapping of the mouse VDUP1 gene. *Gene* 269: 103-112.
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- Song, H., et al. 2003. Vitamin D₃ upregulating protein 1 (VDUP1) antisense DNA regulates tumorigenicity and melanogenesis of murine melanoma cells via regulating the expression of Fas ligand and reactive oxygen species. *Immunol. Lett.* 86: 235-247.
- Kim, K.Y., et al. 2004. Heat shock factor regulates VDUP1 gene expression. *Biochem. Biophys. Res. Commun.* 315: 369-375.
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CHROMOSOMAL LOCATION

Genetic locus: Txnip (mouse) mapping to 3 F2.1.

PRODUCT

VDUP1 (m2): 293T Lysate represents a lysate of mouse VDUP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

VDUP1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VDUP1 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.

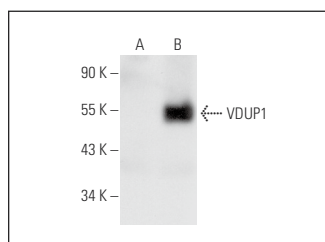
VDUP1 (B-2): sc-166234 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse VDUP1 expression in VDUP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

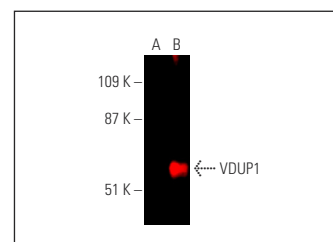
To ensure optimal results, the following support reagents are recommended:

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



VDUP1 (B-2): sc-166234. Western blot analysis of VDUP1 expression in non-transfected: sc-117752 (A) and mouse VDUP1 transfected: sc-124550 (B) 293T whole cell lysates.



VDUP1 (D-2): sc-271237. Near-infrared western blot analysis of VDUP1 expression in non-transfected: sc-117752 (A) and mouse VDUP1 transfected: sc-124550 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

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 for detailed protocols and support products.