

DGCR14 (h3): 293T Lysate: sc-174407

BACKGROUND

DGCR14 (DiGeorge syndrome critical region 14, ES2 protein) is a 476 amino acid nuclear protein that belongs to the DGCR14 family. DGCR14 is believed to play a part in the etiology of the velocardiofacial/DiGeorge syndrome (VCFS/DGS), a developmental disorder characterized by structural and functional palate anomalies, conotruncal cardiac malformations, immunodeficiency, hypocalcemia, and typical facial anomalies. Most cases result from a deletion of chromosome 22q11.21 (DiGeorge syndrome chromosome region, or DGCR). This protein localizes to the nucleus and co-purifies with C complex spliceosomes.

REFERENCES

1. Rizzu, P., et al. 1996. Cloning and comparative mapping of a gene from the commonly deleted region of DiGeorge and velocardiofacial syndromes conserved in *C. elegans*. *Mamm. Genome* 7: 639-643.
2. Gong, W., et al. 1997. Structural and mutational analysis of a conserved gene (DGSI) from the minimal DiGeorge syndrome critical region. *Hum. Mol. Genet.* 6: 267-276.
3. Chieffo, C., et al. 1997. Isolation and characterization of a gene from the DiGeorge chromosomal region homologous to the mouse *Tbx1* gene. *Genomics* 43: 267-277.
4. Lindsay, E.A., et al. 1998. ES2, a gene deleted in DiGeorge syndrome, encodes a nuclear protein and is expressed during early mouse development, where it shares an expression domain with a Goosecoid-like gene. *Hum. Mol. Genet.* 7: 629-635.
5. Wakamiya, M., et al. 1998. Functional analysis of *Gscl* in the pathogenesis of the DiGeorge and velocardiofacial syndromes. *Hum. Mol. Genet.* 7: 1835-1840.
6. Hoogendoorn, B., et al. 2004. Functional analysis of polymorphisms in the promoter regions of genes on 22q11. *Hum. Mutat.* 24: 35-42.

CHROMOSOMAL LOCATION

Genetic locus: DGCR14 (human) mapping to 22q11.21.

PRODUCT

DGCR14 (h3): 293T Lysate represents a lysate of human DGCR14 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DGCR14 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive DGCR14 antibodies. Recommended use: 10-20 µl per lane.

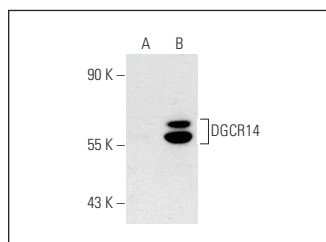
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DGCR14 (2264C3a): sc-81079 is recommended as a positive control antibody for Western Blot analysis of enhanced human DGCR14 expression in DGCR14 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

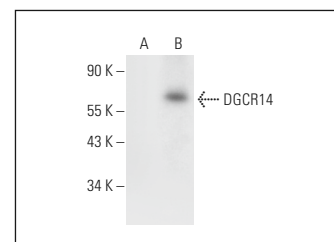
RECOMMENDED SUPPORT REAGENTS

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



DGCR14 (2264C3a): sc-81079. Western blot analysis of DGCR14 expression in non-transfected: sc-117752 (A) and human DGCR14 transfected: sc-174407 (B) 293T whole cell lysates.



DGCR14 (F-8): sc-398528. Western blot analysis of DGCR14 expression in non-transfected: sc-117752 (A) and human DGCR14 transfected: sc-174407 (B) 293T whole cell lysates.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.