

dCK (H-39): sc-99008

BACKGROUND

The dCK/dGK family of proteins includes 4 different deoxyribonucleoside kinases including the cytoplasmic (TK1) and mitochondrial (TK2) thymidine kinases, and the deoxycytidine (dCK) and deoxyguanosine (dGK) kinases. Deoxyribonucleoside kinases catalyze the 5'-phosphorylation of 2'-deoxyribonucleosides with nucleoside triphosphates (NTPs) as phosphate donors. The dCK enzyme is associated with drug resistance and sensitivity, as both dCK and TK2 phosphorylate several antiviral and chemotherapeutic nucleoside analogs. Deficiency of dCK activity corresponds with resistance to antiviral and chemotherapeutic agents. dCK and TK1 localize to the cytosol, whereas dCK and TK2 localize to the mitochondria. These deoxyribonucleoside kinases are most abundantly expressed in muscle, brain and liver.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 125450. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Galmarini, C.M., et al. 2005. The prognostic value of cN-II and cN-III enzymes in adult acute myeloid leukemia. *Haematologica* 90: 1699-1701.

CHROMOSOMAL LOCATION

Genetic locus: DCK (human) mapping to 4q13.3; Dck (mouse) mapping to 5 E1.

SOURCE

dCK (H-39) is a rabbit polyclonal antibody raised against amino acids 203-241 mapping near the C-terminus of dCK 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.

APPLICATIONS

dCK (H-39) is recommended for detection of Deoxycytidine kinase 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).

dCK (H-39) is also recommended for detection of Deoxycytidine kinase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for dCK siRNA (h): sc-60509, dCK siRNA (m): sc-60510, dCK shRNA Plasmid (h): sc-60509-SH, dCK shRNA Plasmid (m): sc-60510-SH, dCK shRNA (h) Lentiviral Particles: sc-60509-V and dCK shRNA (m) Lentiviral Particles: sc-60510-V.

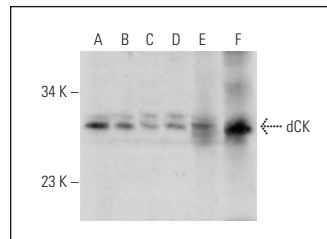
Molecular Weight of dCK: 30 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

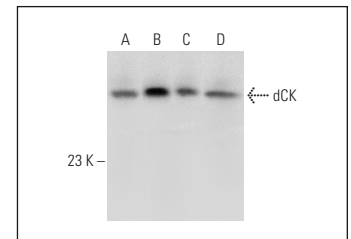
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



dCK (H-39): sc-99008. Western blot analysis of dCK expression in Hep G2 (A), Jurkat (B), WIDR (C) and MCF7 (D) whole cell lysates and mouse liver (E) and mouse heart (F) tissue extracts.



dCK (H-39): sc-99008. Western blot analysis of dCK expression in K-562 (A), Raji (B), A-431 (C) and HeLa (D) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **dCK (H-3): sc-393099** or **dCK (H-5): sc-393098**, our highly recommended monoclonal alternatives to dCK (H-39).