



# SZABO SCANDIC

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Diagnostik & molekulare Diagnostik



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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# DCI (E-8): sc-518208

## BACKGROUND

DCI (dodecenoyl-CoA isomerase) is a 302 amino acid protein that localizes to the mitochondrial matrix and belongs to the enoyl-CoA hydratase/isomerase family. Existing as a homotrimer, DCI functions to catalyze the transformation of both 3-*trans* and 3-*cis* double bonds into 2-*trans* double bonds in a variety of enoyl-CoA proteins. The catalytic activity of DCI is essential for the  $\beta$ -oxidation of unsaturated fatty acids and for proper lipid metabolism. DCI exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 16, which houses over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

- Kilponen, J.M., et al. 1994. cDNA cloning and amino acid sequence of human mitochondrial  $\Delta^3 \Delta^2$ -enoyl-CoA isomerase: comparison of the human enzyme with its rat counterpart, mitochondrial short-chain isomerase. *Biochem. J.* 300: 1-5.
- Janssen, U., et al. 1994. Human mitochondrial 3,2-*trans*-enoyl-CoA isomerase (DCI): gene structure and localization to chromosome 16p13.3. *Genomics* 23: 223-228.
- He, X.Y. and Yang, S.Y. 1997. Glutamate-119 of the large  $\alpha$ -subunit is the catalytic base in the hydration of 2-*trans*-enoyl-coenzyme A catalyzed by the multienzyme complex of fatty acid oxidation from *Escherichia coli*. *Biochemistry* 36: 11044-11049.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600305. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: EC11 (human) mapping to 16p13.3.

## SOURCE

DCI (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 254-277 of DCI of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DCI (E-8) is available conjugated to agarose (sc-518208 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518208 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518208 PE), fluorescein (sc-518208 FITC), Alexa Fluor® 488 (sc-518208 AF488), Alexa Fluor® 546 (sc-518208 AF546), Alexa Fluor® 594 (sc-518208 AF594) or Alexa Fluor® 647 (sc-518208 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518208 AF680) or Alexa Fluor® 790 (sc-518208 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

DCI (E-8) is recommended for detection of DCI of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for DCI siRNA (h): sc-93112, DCI shRNA Plasmid (h): sc-93112-SH and DCI shRNA (h) Lentiviral Particles: sc-93112-V.

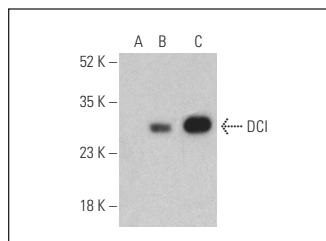
Molecular Weight of DCI: 33 kDa.

Positive Controls: DCI (h): 293T Lysate: sc-111200 or COLO 320DM cell lysate: sc-2226.

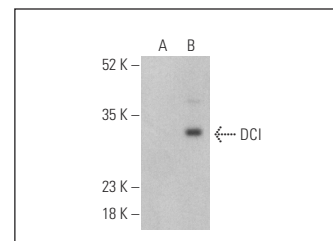
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



DCI (E-8): sc-518208. Western blot analysis of DCI expression in non-transfected 293T: sc-117752 (A), human DCI transfected 293T: sc-111200 (B) and COLO 320DM (C) whole cell lysates. Detection reagent used: m-IgG<sub>1</sub> BP-HRP: sc-525408.



DCI (E-8): sc-518208. Western blot analysis of DCI expression in non-transfected: sc-117752 (A) and human DCI transfected: sc-111200 (B) 293T whole cell lysates. Detection reagent used: m-IgG $\kappa$  BP-HRP: sc-516102.

## 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](http://www.scbt.com) for detailed protocols and support products.

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