



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# GALK1 (m): 293T Lysate: sc-125370

## BACKGROUND

Galactose kinase (GALK1), also often designated galactokinase, is important in the first step of the galactose metabolism pathway. GALK1, which belongs to the GHMP kinase family of proteins, is a crucial enzyme for galactose metabolism. Defects in the gene encoding for galactose kinase, GALK1, can cause galactosemia II, an autosomal recessive disorder characterized by congenital cataracts during infancy, often within the first two weeks of life. In the adult population it can cause presenile cataracts that are secondary to accumulation of galactitol in the lens of the eye.

## REFERENCES

- Hunter, M., Angelicheva, D., Levy, H.L., Pueschel, S.M. and Kalaydjieva, L. 2001. Novel mutations in the GALK1 gene in patients with galactokinase deficiency. *Hum. Mutat.* 17: 77-78.
- Okano, Y, Asada, M., Fujimoto, A., Ohtake, A., Murayama, K., Hsiao, K.J., Choeh, K., Yang, Y., Cao, Q., Reichardt, J.K., Niihira, S., Imamura, T. and Yamano, T. 2001. A genetic factor for age-related cataract: identification and characterization of a novel galactokinase variant, "Osaka," in Asians. *Am. J. Hum. Genet.* 68: 1036-1042.
- Timson, D.J. and Reece, R.J. 2003. Functional analysis of disease-causing mutations in human galactokinase. *Eur. J. Biochem.* 270: 1767-1774.
- Holden, H.M., Thoden, J.B., Timson, D.J. and Reece, R.J. 2004. Galactokinase: structure, function and role in type II galactosemia. *Cell. Mol. Life Sci.* 61: 2471-2484.
- Ross, K.L., Davis, C.N. and Fridovich-Keil, J.L. 2004. Differential roles of the Leloir pathway enzymes and metabolites in defining galactose sensitivity in yeast. *Mol. Genet. Metab.* 83: 103-116.
- Sangiulo, F., Magnani, M., Stambolian, D. and Novelli, G. 2004. Biochemical characterization of two GALK1 mutations in patients with galactokinase deficiency. *Hum. Mutat.* 23: 396.
- Thoden, J.B., Timson, D.J., Reece, R.J. and Holden, H.M. 2005. Molecular structure of human galactokinase: implications for type II galactosemia. *J. Biol. Chem.* 280: 9662-9670.

## CHROMOSOMAL LOCATION

Genetic locus: Galk1 (mouse) mapping to 11 E2.

## PRODUCT

GALK1 (m): 293T Lysate represents a lysate of mouse GALK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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

## APPLICATIONS

GALK1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GALK1 antibodies. Recommended use: 10-20 µl per lane.

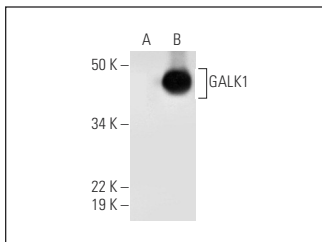
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GALK1 (C-1): sc-393356 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse GALK1 expression in GALK1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

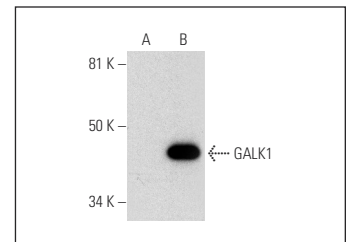
## RECOMMENDED SUPPORT REAGENTS

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



GALK1 (C-1): sc-393356. Western blot analysis of GALK1 expression in non-transfected: sc-117752 (A) and mouse GALK1 transfected: sc-125370 (B) 293T whole cell lysates.



GALK1 (A-2): sc-393404. Western blot analysis of GALK1 expression in non-transfected: sc-117752 (A) and mouse GALK1 transfected: sc-125370 (B) 293T whole cell lysates.

## RESEARCH USE

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