



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PKLR (m): 293 Lysate: sc-179336

## BACKGROUND

In mammals, four different isoenzymes exist for pyruvate kinase. Based on their tissue distribution, the isoenzymes are designated L-type (for predominant expression in the liver), R-type (for predominant expression in red blood cells), M1-type (for predominant expression in muscle, brain and heart) and M2-type (for predominant expression in fetal tissues). Pyruvate kinases are responsible for catalyzing the final step in glycolysis: the conversion of phosphoenolpyruvate to pyruvate with the coinciding generation of ATP. The PKLR (pyruvate kinase, liver and RBC) gene encodes the L- and R-type isoenzymes through alternative splicing events under the control of different promoters. The R-type isoform, also known as RPK (R-type pyruvate kinase) exists as a tetramer and when functioning improperly, can result in chronic/hereditary nonspherocytic hemolytic anemia (CNSHA/HNSHA) or pyruvate kinase hyperactivity (also called high red cell ATP syndrome). The L-type isoform, alternatively known as PKL (pyruvate kinase L-type), also exists as a tetramer and is upregulated by glucose with implications in maturity-onset diabetes of the young (MODY).

## REFERENCES

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2. Tani, K., Tsutsumi, H., Takahashi, K., Ogura, H., Kanno, H., Hayasaka, K., Narisawa, K., Nakahata, T., Akabane, T. and Morisaki, T. 1988. Two homozygous cases of erythrocyte pyruvate kinase (PK) deficiency in Japan: PK Sendai and PK Shinshu. *Am. J. Hematol.* 28: 186-190.
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5. van Wijk, R., van Solinge, W.W., Nerlov, C., Beutler, E., Gelbart, T., Rijksen, G. and Nielsen, F.C. 2003. Disruption of a novel regulatory element in the erythroid-specific promoter of the human PKLR gene causes severe pyruvate kinase deficiency. *Blood* 101: 1596-1602.
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## CHROMOSOMAL LOCATION

Genetic locus: Pklr (mouse) mapping to 3 F1.

## PRODUCT

PKLR (m): 293 Lysate represents a lysate of mouse PKLR transfected 293 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.

## APPLICATIONS

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

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

## 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.