



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

www.szabo-scandic.com

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

Dyrk4 (h3): 293T Lysate: sc-158465

BACKGROUND

Dyrk (for dual specificity tyrosine phosphorylation regulated kinase) is the homolog of the *Drosophila* *mnb* (minibrain) gene, which is required for neurogenesis. Dyrk is a dual-specificity tyrosine kinase and serine/threonine kinase, which is itself regulated by tyrosine phosphorylation. Several mammalian Dyrk related proteins have been identified and are thought to compose a family of dual specificity protein kinases. Dyrk family members, including Dyrk1A (originally Dyrk), Dyrk1B, Dyrk1C, Dyrk2, Dyrk3 and Dyrk4, are thought to be involved in diverse cellular functions. Dyrk4 is a testis-specific kinase found mainly in post-meiotic spermatids, but has also been implicated in neuronal differentiation. It exists as two isoforms, named Dyrk4A and Dyrk4B, which share greater than 95% sequence homology. Dyrk4 deficiency has been shown to have no effect on male fertility, indicating a possible redundancy in the spermiogenesis pathway.

REFERENCES

- Kentrup, H., Becker, W., Heukelbach, J., Wilmes, A., Schurmann, A., Huppertz, C., Kainulainen, H. and Joost, H.G. 1996. Dyrk, a dual specificity protein kinase with unique structural features whose activity is dependent on tyrosine residues between subdomains VII and VIII. *J. Biol. Chem.* 271: 3488-3495.
- Song, W.J., Sternberg, L.R., Kasten-Sportes, C., Keuren, M.L., Chung, S.H., Slack, A.C., Miller, D.E., Glover, T.W., Chiang, P.W., Lou, L. and Kurnit, D.M. 1996. Isolation of human and murine homologues of the *Drosophila* minibrain gene: human homologue maps to 21q22.2 in the Down syndrome "critical region". *Genomics* 38: 331-339.
- Shindoh, N., Kudoh, J., Maeda, H., Yamaki, A., Minoshima, S., Shimizu, Y. and Shimizu, N. 1996. Cloning of a human homolog of the *Drosophila* minibrain/rat Dyrk gene from "the Down syndrome critical region" of chromosome 21. *Biochem. Biophys. Res. Commun.* 225: 92-99.
- Becker, W., Weber, Y., Wetzell, K., Eirnbter, K., Tejedor, F.J. and Joost, H.G. 1998. Sequence characteristics, subcellular localization, and substrate specificity of Dyrk-related kinases, a novel family of dual specificity protein kinases. *J. Biol. Chem.* 273: 25893-25902.
- Leyboldt, F., Lewerenz, J. and Methner, A. 2001. Identification of genes upregulated by retinoic-acid-induced differentiation of the human neuronal precursor cell line NTERA-2 cl.D1. *J. Neurochem.* 76: 806-814.
- Sacher, F., Möller, C., Bone, W., Gottwald, U. and Fritsch, M. 2007. The expression of the testis-specific Dyrk4 kinase is highly restricted to step 8 spermatids but is not required for male fertility in mice. *Mol. Cell. Endocrinol.* 267: 80-88.

CHROMOSOMAL LOCATION

Genetic locus: DYRK4 (human) mapping to 12p13.32.

PRODUCT

Dyrk4 (h3): 293T Lysate represents a lysate of human Dyrk4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Dyrk4 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Dyrk4 antibodies. Recommended use: 10-20 µl per lane.

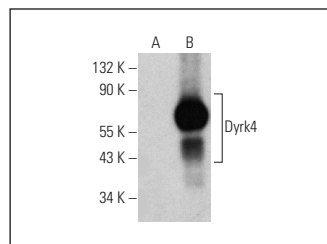
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Dyrk4 (C-5): sc-393479 is recommended as a positive control antibody for Western Blot analysis of enhanced human Dyrk4 expression in Dyrk4 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



Dyrk4 (C-5): sc-393479. Western blot analysis of Dyrk4 expression in non-transfected: sc-110760 (A) and human Dyrk4 transfected: sc-158465 (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.