



# 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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# DDO (m): 293T Lysate: sc-119700

## BACKGROUND

DDO (D-aspartate oxidase), also known as DASOX, is a 341 amino acid protein that localizes to peroxisomes and exists as two alternatively spliced isoforms, designated DDO-1 and DDO-2. Using FAD or 6-hydroxyflavin adenine dinucleotide as cofactors, DDO functions as a peroxisomal flavoprotein that selectively catalyzes the oxidative deamination of D-aspartate and N-methyl D-aspartate. Human DDO shares 86% sequence similarity with its bovine counterpart, suggesting a conserved role between species. The gene encoding DDO maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

1. Barker, R.F. and Hopkinson, D.A. 1977. The genetic and biochemical properties of the D-amino acid oxidases in human tissues. *Ann. Hum. Genet.* 41: 27-42.
2. Van Veldhoven, P.P., Brees, C. and Mannaerts, G.P. 1991. D-aspartate oxidase, a peroxisomal enzyme in liver of rat and man. *Biochim. Biophys. Acta* 1073: 203-208.
3. Nagasaki, H. 1994. Gender-related differences of mouse liver D-aspartate oxidase in the activity and response to administration of D-aspartate and peroxisome proliferators. *Int. J. Biochem.* 26: 415-423.
4. Simonic, T., Duga, S., Negri, A., Tedeschi, G., Malcovati, M., Tenchini, M.L. and Ronchi, S. 1997. cDNA cloning and expression of the flavoprotein D-aspartate oxidase from bovine kidney cortex. *Biochem. J.* 322: 729-735.
5. Setoyama, C. and Miura, R. 1997. Structural and functional characterization of the human brain D-aspartate oxidase. *J. Biochem.* 121: 798-803.
6. Amery, L., Brees, C., Baes, M., Setoyama, C., Miura, R., Mannaerts, G.P. and Van Veldhoven, P.P. 1998. C-terminal tripeptide Ser-Asn-Leu (SNL) of human D-aspartate oxidase is a functional peroxisome-targeting signal. *Biochem. J.* 336: 367-371.
7. Zaar, K., Köst, H.P., Schad, A., Völkl, A., Baumgart, E. and Fahimi, H.D. 2002. Cellular and subcellular distribution of D-aspartate oxidase in human and rat brain. *J. Comp. Neurol.* 450: 272-282.
8. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 124450. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: Ddo (mouse) mapping to 10 B1.

## PRODUCT

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

## APPLICATIONS

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

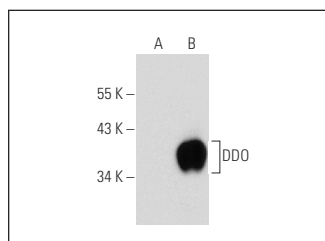
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DDO (H-6): sc-365135 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse DDO expression in DDO transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

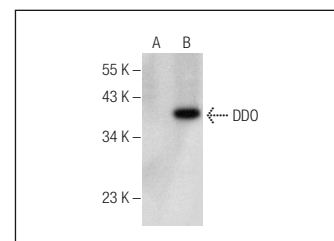
## RECOMMENDED SUPPORT REAGENTS

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



DDO (H-6): sc-365135. Western blot analysis of DDO expression in non-transfected: sc-117752 (A) and mouse DDO transfected: sc-119700 (B) 293T whole cell lysates.



DDO (D-8): sc-376705. Western blot analysis of DDO expression in non-transfected: sc-117752 (A) and mouse DDO transfected: sc-119700 (B) 293T whole cell lysates.

## RESEARCH USE

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