

DDO (H-170): sc-98495

BACKGROUND

DDO (D-aspartate oxidase), also known as DASOX, is a 341 amino acid protein that localizes to peroxisomes and exists as 2 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.

CHROMOSOMAL LOCATION

Genetic locus: DDO (human) mapping to 6q21; Ddo (mouse) mapping to 10 B1.

SOURCE

DDO (H-170) is a rabbit polyclonal antibody raised against amino acids 151-320 mapping near the C-terminus of DDO of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DDO (H-170) is recommended for detection of DDO of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

DDO (H-170) is also recommended for detection of DDO in additional species, including equine and bovine.

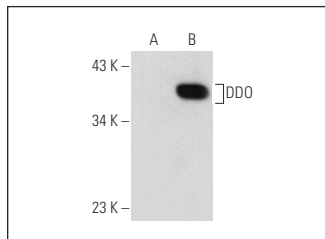
Suitable for use as control antibody for DDO siRNA (h): sc-77101, DDO siRNA (m): sc-77102, DDO shRNA Plasmid (h): sc-77101-SH, DDO shRNA Plasmid (m): sc-77102-SH, DDO shRNA (h) Lentiviral Particles: sc-77101-V and DDO shRNA (m) Lentiviral Particles: sc-77102-V.

Molecular Weight of DDO: 37 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DDO (H-170): sc-98495. Western blot analysis of DDO expression in non-transfected: sc-117752 (A) and mouse DDO transfected: sc-119700 (B) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.



Try **DDO (H-6): sc-365135**, our highly recommended monoclonal alternative to DDO (H-170).