10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DDO Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4795c

Specification

DDO Antibody (Center) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	Q99489
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**102-130**

DDO Antibody (Center) - Additional Information

Gene ID 8528

Other Names
D-aspartate oxidase, DASOX, DDO, DDO

Target/Specificity
This DDO antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 102-130 amino acids from the Central region of human DDO.

Dilution
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
DDO Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DDO Antibody (Center) - Protein Information

Name DDO

Function Selectively catalyzes the oxidative deamination of acidic amino acids (PubMed:1991137, PubMed:20603179, PubMed:23391306, PubMed:25747990, PubMed:28393897,

PubMed:28560262, PubMed:28629864, PubMed:29292239, PubMed:31914658, PubMed:32553892, PubMed:9163533). Suppresses the level of D-aspartate in the brain, an amino acid that can act as an agonist for glutamate receptors (PubMed:28560262). Protects the organism from the toxicity of D-amino acids (By similarity). May also function in the intestine (By similarity).

Cellular Location
Peroxisome matrix. Cytoplasm, cytosol. Note=Active in the peroxisomal matrix [Isoform 3]: Peroxisome matrix

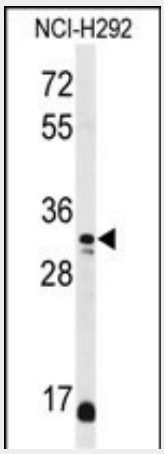
Tissue Location
Expressed in epithelial cells of the proximal nephron tubules in the renal cortex (at protein level) (PubMed:12209855, PubMed:1991137). In the brain, expressed in the frontal, temporal, and occipital lobes of the cortex, hippocampus, striatum, diencephalon, brainstem, cerebellum, spinal cord, plexus choroiderus and ependyma (at protein level) (PubMed:12209855, PubMed:28560262). Expression is increased in the prefrontal cortex of schizophrenic patients (PubMed:25689573). Levels are normal in the superior frontal gyrus of patients with Alzheimer's disease (PubMed:30822420).

DDO Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DDO Antibody (Center) - Images



Western blot analysis of DDO Antibody (Center) (Cat. #AP4795c) in NCI-H292 cell line lysates (35ug/lane). DDO (arrow) was detected using the purified Pab.

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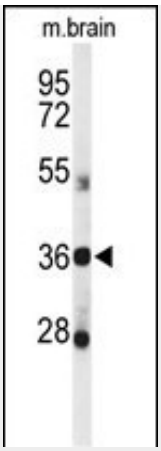
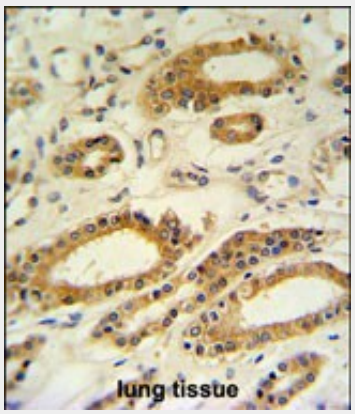


Western blot analysis of DDO Antibody (Center) (Cat. #AP4795c) in mouse brain tissue lysates (35ug/lane). DDO (arrow) was detected using the purified Pab.



DDO Antibody (Center) (Cat. #AP4795c) IHC analysis in formalin fixed and paraffin embedded lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DDO Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

DDO Antibody (Center) - Background

DDO is a peroxisomal flavoprotein that catalyzes the oxidative deamination of D-aspartate and N-methyl D-aspartate. Flavin adenine dinucleotide or 6-hydroxyflavin adenine dinucleotide can serve as the cofactor in this reaction.

DDO Antibody (Center) - References

Jamra, R.A., et al. Psychiatr. Genet. 19 (1), 56 (2009)
Mungall, A.J., et al. Nature 425(6960):805-811(2003)
Zaar, K., et al. J. Comp. Neurol. 450(3):272-282(2002)