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OAZ1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7477A

Product Information

Application	WB, IHC-P, E
Primary Accession	P54368
Reactivity	Human, Mouse, Rat
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	25406
Antigen Region	2-31

Additional Information

Gene ID	4946
Other Names	Ornithine decarboxylase antizyme 1, ODC-Az, OAZ1, OAZ
Target/Specificity	This OAZ1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2-31 amino acids from the N-terminal region of human OAZ1.
Dilution	WB~~1:2000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	OAZ1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	OAZ1
Synonyms	OAZ
Function	Ornithine decarboxylase (ODC) antizyme protein that negatively regulates ODC activity and intracellular polyamine biosynthesis and uptake in response to increased intracellular polyamine levels. Binds to ODC monomers,

inhibiting the assembly of the functional ODC homodimer, and targets the monomers for ubiquitin- independent proteolytic destruction by the 26S proteasome (PubMed:17900240, PubMed:26305948, PubMed:26443277). Triggers ODC degradation by inducing the exposure of a cryptic proteasome-interacting surface of ODC (PubMed:26305948). Stabilizes AZIN2 by interfering with its ubiquitination (PubMed:17900240). Also inhibits cellular uptake of polyamines by inactivating the polyamine uptake transporter. SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1. Involved in the translocation of AZIN2 from ER-Golgi intermediate compartment (ERGIC) to the cytosol (PubMed:12097147).

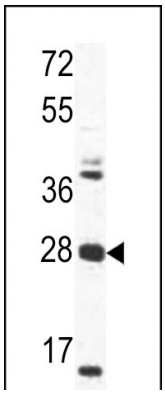
Background

OAZ1 catalyzes the conversion of ornithine to putrescine in the first and apparently rate-limiting step in polyamine biosynthesis. This protein play a role in the regulation of polyamine synthesis by binding to and inhibiting ornithine decarboxylase. The protein expression is auto-regulated by polyamine-enhanced translational frameshifting.

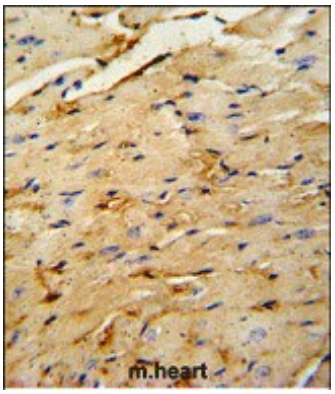
References

Grimwood J., Gordon L.A.Nature 428:529-535(2004)
Hayashi T., Matsufuji S.Gene 203:131-139(1997)
Tewari D.S., Qian Y.Biochim. Biophys. Acta 1209:293-295(1994)

Images



Western blot analysis of OAZ1 Antibody (N-term) (Cat.#AP7477a) in mouse heart tissue lysates (35ug/lane). OAZ1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded mouse heart tissue reacted with OAZ1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.