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Anti-ADO Picoband Antibody

Catalog # ABO11650

Product Information

Application	WB
Primary Accession	Q96SZ5
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for 2-aminoethanethiol dioxygenase(ADO) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	84890
Other Names	2-aminoethanethiol dioxygenase, 1.13.11.19, Cysteamine dioxygenase, ADO, C10orf22
Calculated MW	29751
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Source	Eukaryota
Protein Name	2-aminoethanethiol dioxygenase
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human ADO recombinant protein (Position: E49-E261). Human ADO shares 90.1% amino acid (aa) sequence identity with mouse ADO.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

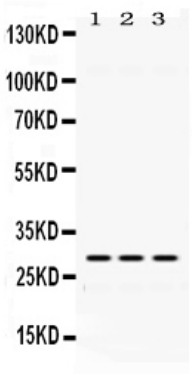
Name	ADO

Synonyms	C10orf22
Function	Plays a vital role in regulating thiol metabolism and preserving oxygen homeostasis by oxidizing the sulfur of cysteamine and N-terminal cysteine-containing proteins to their corresponding sulfinic acids using O2 as a cosubstrate (PubMed:17581819, PubMed:29752763, PubMed:31273118, PubMed:32601061). Catalyzes the oxidation of cysteamine (2-aminoethanethiol) to hypotaurine (PubMed:17581819, PubMed:29752763, PubMed:32601061). Catalyzes the oxidation of regulators of G protein signaling 4 (RGS4) and 5 (RGS5) and interleukin-32 (IL32) (PubMed:31273118, PubMed:32601061).

Background

Human thiol dioxygenases include cysteine dioxygenase (CDO) and cysteamine (2-aminoethanethiol) dioxygenase (ADO). CDO adds 2 oxygen atoms to free cysteine, whereas ADO adds 2 oxygen atoms to free cysteamine to form hypotaurine. It is demonstrated that mouse Ado has strong and specific dioxygenase activity in vitro towards cysteamine but not cysteine. Recombinant Ado was shown to bind iron. Overexpression of Ado in HepG2/C3A cells increased the production of hypotaurine from cysteamine. Similar results were found with human ADO. When endogenous expression of ADO was reduced by RNA-mediated interference, hypotaurine production decreased. It is also noted that the demonstration of high levels of ADO in brain challenges the previous assumption that most of the taurine in the brain is a consequence of CDO activity.

Images



Western blot analysis of ADO expression in rat testis extract (lane 1), mouse kidney extract (lane 2) and HELA whole cell lysates (lane 3). ADO at 30KD was detected using rabbit anti- ADO Antigen Affinity purified polyclonal antibody (Catalog # ABO11650) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

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