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Anti-ADO Picoband Antibody
Catalog # ABO11650

Specification

Anti-ADO Picoband Antibody - 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.

Anti-ADO Picoband Antibody - Additional Information

Gene ID 84890

Other Names
2-aminoethanethiol dioxygenase, 1.13.11.19, Cysteamine dioxygenase, ADO, C10orf22

Calculated MW
29751 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

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.

Anti-ADO Picoband Antibody - 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).

Anti-ADO Picoband Antibody - 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

Anti-ADO Picoband Antibody - Images

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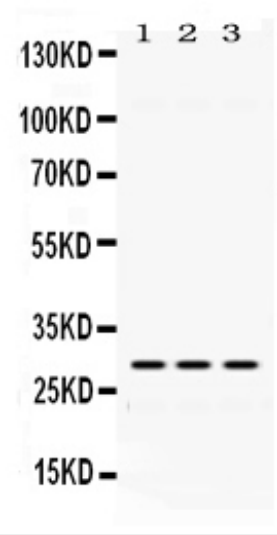

Western blot analysis of ADO expression in rat testis extract (lane 1), mouse kidney extract (lane 2) and HELA whole cell lysates (lane 3). ADO at 30KD was detected using rabbit anti- ADO Antigen Affinity purified polyclonal antibody (Catalog # ABO11650) at 0.5 ??g/mL. The blot was developed using chemiluminescence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

Anti-ADO Picoband Antibody - 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.