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Anti-AZIN2 Picoband Antibody

Catalog # ABO12788

Product Information

Application	WB, IHC-P
Primary Accession	Q96A70
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Antizyme inhibitor 2(AZIN2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	113451
Other Names	Antizyme inhibitor 2, AzI2, Arginine decarboxylase, ADC, ARGDC, Ornithine decarboxylase-like protein, ODC-like protein, ornithine decarboxylase paralog, ODC-p, AZIN2, ADC, KIAA1945, ODCP
Calculated MW	49980
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus. Cytoplasm . Cytoplasm, perinuclear region. Membrane . Cytoplasmic vesicle. Endoplasmic reticulum-Golgi intermediate compartment . Golgi apparatus, cis-Golgi network . Golgi apparatus, trans-Golgi network. Cytoplasmic granule. Cell projection, axon. Cell projection, dendrite. Perikaryon. Colocalizes with KDEL receptors in ER-Golgi intermediate compartment (ERGIC). Translocates from the ERGIC structure to the cytoplasm in a antizyme-dependent manner. Localizes with vesicle- associated membrane protein VAMP8 in the vicinity of the plasma membrane within serotonin-containing secretory granules (By similarity). Detected as vesicle-like pattern in neurite outgrowths. Localizes to the vesicular compartments of the secretory pathway, predominantly in the trans-Golgi network (TGN). Localizes with vesicle-associated membrane protein VAMP8 in the vicinity of the plasma membrane within serotonin-containing secretory granules. .
Tissue Specificity	Expressed in the neocortex, thalamus, hippocampus, cerebellum, medulla oblongata, gray and white matter. Expressed in neurons, oligodendrocytes,

	basket, Purkinje and pyramidal cells. Expressed in spermatocytes and Leydig cells of the testis. Expressed in luteal theca cells lining corpus luteum cysts and in hilus cells of the ovary. Expressed in primary and neoplastic mast cells (MC) (at protein level). Highly expressed in brain. Also expressed in testis. .
Source	Eukaryota
Protein Name	Antizyme inhibitor 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human AZIN2 recombinant protein (Position: C111-Q301). Human AZIN2 shares 89.4% amino acid (aa) sequence identity with mouse AZIN2.
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

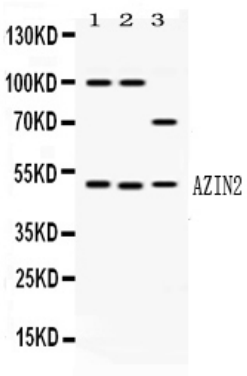
Name	AZIN2
Synonyms	ADC, KIAA1945, ODCP
Function	Antizyme inhibitor (AZI) protein that positively regulates ornithine decarboxylase (ODC) activity and polyamine uptake. AZI is an enzymatically inactive ODC homolog that counteracts the negative effect of ODC antizymes (AZs) OAZ1, OAZ2 and OAZ3 on ODC activity by competing with ODC for antizyme-binding (PubMed:17900240). Inhibits antizyme- dependent ODC degradation and releases ODC monomers from their inactive complex with antizymes, leading to formation of the catalytically active ODC homodimer and restoring polyamine production (PubMed:17900240). Participates in the morphological integrity of the trans-Golgi network (TGN) and functions as a regulator of intracellular secretory vesicle trafficking (PubMed:20188728).
Cellular Location	Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Membrane. Cytoplasmic vesicle Endoplasmic reticulum-Golgi intermediate compartment Golgi apparatus, cis-Golgi network. Golgi apparatus, trans-Golgi network. Cytoplasmic granule. Cell projection, axon. Cell projection, dendrite. Perikaryon. Note=Colocalizes with KDEL receptors in ER-Golgi intermediate compartment (ERGIC). Translocates from the ERGIC structure to the cytoplasm in an antizyme-dependent manner Localizes with vesicle-associated membrane protein VAMP8 in the vicinity of the plasma membrane within serotonin-containing secretory granules (By similarity). Detected as vesicle-like pattern in neurite outgrowths. Localizes to the vesicular compartments of the secretory pathway, predominantly in the trans-Golgi network (TGN). Localizes with vesicle-associated membrane protein VAMP8 in the vicinity of the plasma membrane within serotonin-containing secretory granules.
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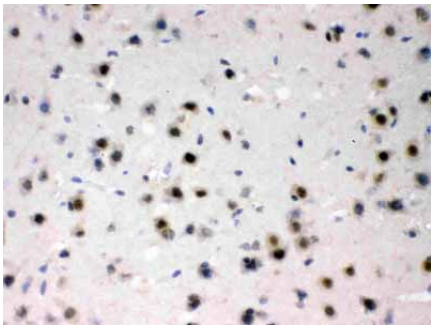
Background

Antizyme inhibitor 2 (AzI2), also known as arginine decarboxylase (ADC), is an enzyme that in humans is encoded by the AZIN2 gene. The protein encoded by this gene belongs to the antizyme inhibitor family, which plays a role in cell growth and proliferation by maintaining polyamine homeostasis within the cell. Antizyme inhibitors are homologs of ornithine decarboxylase (ODC, the key enzyme in polyamine biosynthesis) that have lost the ability to decarboxylase ornithine; however, retain the ability to bind to antizymes. Antizymes negatively regulate intracellular polyamine levels by binding to ODC and targeting it for degradation, as well as by inhibiting polyamine uptake. Antizyme inhibitors function as positive regulators of polyamine levels by sequestering antizymes and neutralizing their effect. This gene encodes antizyme inhibitor 2, the second member of this gene family. Like antizyme inhibitor 1, antizyme inhibitor 2 interacts with all 3 antizymes and stimulates ODC activity and polyamine uptake. However, unlike antizyme inhibitor 1, which is ubiquitously expressed and localized in the nucleus and cytoplasm, antizyme inhibitor 2 is predominantly expressed in the brain and testis and localized in the endoplasmic reticulum-golgi intermediate compartment. Recent studies indicate that antizyme inhibitor 2 is also expressed in specific cell types in ovaries, adrenal glands and pancreas, and in mast cells. The exact function of this gene is not known, however, available data suggest its role in cell growth, spermiogenesis, vesicular trafficking and secretion.

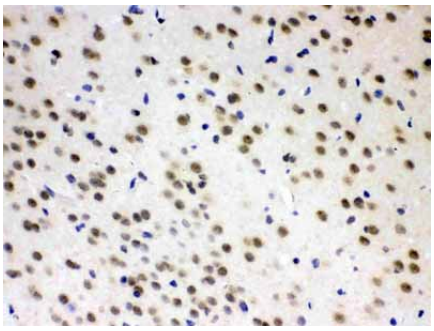
Images



Western blot analysis of AZIN2 expression in rat brain extract (lane 1), mouse brain extract (lane 2) and HELA whole cell lysates (lane 3). AZIN2 at 50KD was detected using rabbit anti- AZIN2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12788) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .



AZIN2 was detected in paraffin-embedded sections of mouse brain tissues using rabbit anti- AZIN2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12788) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



AZIN2 was detected in paraffin-embedded sections of rat brain tissues using rabbit anti- AZIN2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12788) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .

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