

**AZIN2 / Antizyme Inhibitor 2 Antibody (Internal)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS16225****Specification****AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">Q96A70</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50kDa KDa

**AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - 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

**Target/Specificity**

Human ADC

**Reconstitution & Storage**

Aliquot and freeze at -20° C. Avoid freeze-thaw cycles.

**Precautions**

AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - 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:<a href="http://www.uniprot.org/citations/17900240" target="\_blank">17900240</a>). 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:<a href="http://www.uniprot.org/citations/17900240" target="\_blank">17900240</a>). Participates in the morphological integrity of the trans-Golgi network (TGN) and functions as a regulator of intracellular secretory vesicle trafficking (PubMed:<a href="http://www.uniprot.org/citations/17900240" target="\_blank">17900240</a>).

href="http://www.uniprot.org/citations/20188728" target="\_blank">20188728</a>).

#### **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.

#### **Tissue Location**

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

#### **Volume**

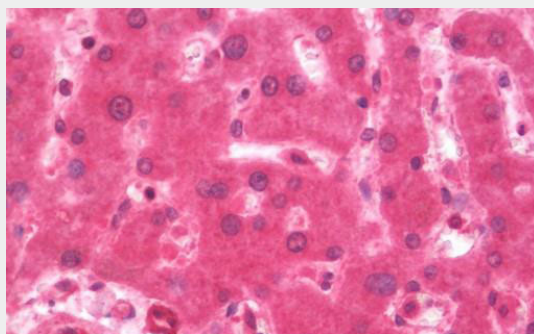
50 µl

#### **AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - Protocols**

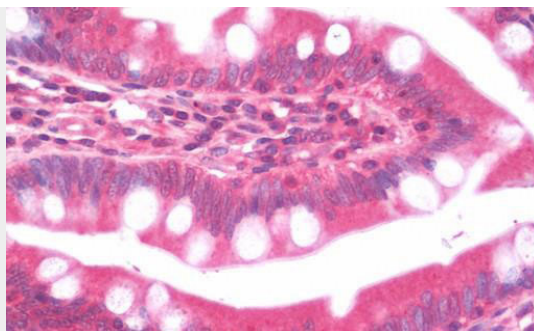
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

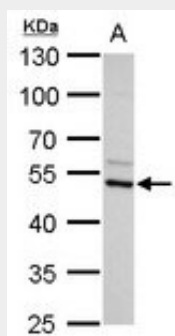
#### **AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - Images**



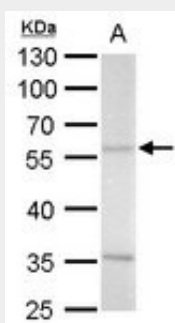
Anti-Arginine Decarboxylase / ADC antibody IHC staining of human liver.



Anti-Arginine Decarboxylase / ADC antibody IHC staining of human small intestine.



Sample (30 ug of whole cell lysate) A: SK-N-SH 10% SDS PAGE ADC antibody diluted at 1:5000



Sample (30 ug) A: Human normal cerebellar extract 10% SDS PAGE ADC antibody diluted at 1:1500

### **AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - Background**

Antizyme inhibitor protein that positively regulates ornithine decarboxylase (ODC) activity and polyamine uptake by counteracting the negative effect of antizymes OAZ1, OAZ2 and OAZ3 on ODC1 activity (PubMed:17900240). Inhibits antizyme-dependent ODC1 degradation by binding to antizymes. Releases ODC1 from its inactive complex with antizymes, leading to formation of the catalytically active ODC1. Participates in the morphological integrity of the trans-Golgi network (TGN) and functions as a regulator of intracellular secretory vesicle trafficking (PubMed:20188728).

### **AZIN2 / Antizyme Inhibitor 2 Antibody (Internal) - References**

Pitkaenen L.T.,et al.Biochem. Biophys. Res. Commun. 287:1051-1057(2001).  
Zhu M.-Y.,et al.Biochim. Biophys. Acta 1670:156-164(2004).  
Nagase T.,et al.DNA Res. 8:319-327(2001).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Gregory S.G.,et al.Nature 441:315-321(2006).