Recombinant Human AZIN2 Protein, His-tagged

Cat. No. AZIN2-284H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AZIN2 Protein (Ala2-Glu348) with N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Ala2-Glu348
Description	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

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	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. Accumulation of antizyme inhibitor 2 has also been observed in brains of patients with Alzheimer's disease. There has been confusion in literature and databases over the nomenclature of this gene, stemming from an earlier report that a human cDNA clone (identical to ODCp/AZIN2) had arginine decarboxylase (ADC) activity (PMID:14738999). Subsequent studies in human and mouse showed that antizyme inhibitor 2 was devoid of arginine decarboxylase activity (PMID:19956990). Alternatively spliced transcript variants have been described for this gene.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 41.3 kDa Accurate Molecular Mass: 41 kDa
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	PBS, pH7.4, containing 0.01% SKL, 1 mM DTT, 5% Trehalose and Proclin300.

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Reconstitution	Reconstitute in sterile water to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	AZIN2 antizyme inhibitor 2 [Homo sapiens (human)]
Official Symbol	AZIN2
Synonyms	AZIN2; antizyme inhibitor 2; ADC; AZI2; ODCp; AZIB1; ODC-p; ODC1L; antizyme inhibitor 2; ODC antizyme inhibitor-2; ODC-like protein; ODC-paralogue; arginine decarboxylase; ornithine decarboxylase like; ornithine decarboxylase-like protein; ornithine decarboxylase-paralog
Gene ID	113451
mRNA Refseq	NM_052998
Protein Refseq	NP_443724
MIM	608353
UniProt ID	Q96A70

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