

Recombinant Human AZIN2 Protein (Met1-Glu348), N-His tagged

Cat. No. AZIN2-1325H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AZIN2 (Met1-Glu348) fused with the N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Met1-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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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. 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	Lyophilized powder/frozen liquid
Molecular Mass	40.06 kDa
Purity	>90% as determined by SDS-PAGE.
Notes	For research use only.
Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 centigrade for one week. Store at -20 to -80 centigrade for twelve months from the date of receipt.
Storage Buffer	0.01M PBS, pH 7.4, 0.02% NLS
Reconstitution	Reconstitute in sterile water for a stock solution.
Shipping	They are shipped out with dry ice/blue ice unless customers require otherwise.

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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

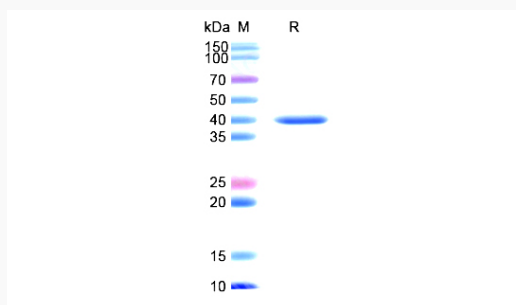
Gene ID 113451

mRNA Refseq NM_052998

Protein Refseq NP_443724

MIM 608353

SDS-PAGE



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