

Recombinant Full Length Human ADC Protein, GST-tagged

Cat. No. ADC-901HF Lot. No. (See product label)

SPECIFICATION

Product Overview	Human ADC full-length ORF (ABM86174.1, 1 a.a. - 460 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	460 amino acids
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

 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

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. [provided by RefSeq, Sep 2014]

Molecular Mass 77 kDa

AA Sequence

MAGYLSESDF VMVEEGFSTR DLLKELTLGA SQATTDEVAA FFVADLGAIV
 RKHFCFLKCL PRVRPFYAVK CNSSPGVLKV LAQLGLGFSC ANKAEMELVQ
 HIGIPASKII CANPCKQIAQ IKYAAKHGIQ LLSFDNEMEL AKVVKSHPSA
 KMLVLCIATDD SHSLSCLSLK FGVSLKSCRH LLENAKKHHV EVVGVSFHIG
 SGCPDPQAYA QSIADARLVF EMGTELGHKM HVLDLGGGFP GTEGAKVRFE
 EIASVINSAL DLYFPEGCGV DIFAELEGYY VTSFTVAVS IIAKKEVLLD
 QPGREEENGTS TSKTIVYHLD EGVYGIFNSV LFDNICPTPI LQKKPSTEQP
 LYSSSLWGPA VDGCDCAEG LWLPQLHVGDLWVFDNMGAY TVGMGSPFWG
 TQACHITYAM SRVAWEALRR QLMAAEQEDD VEGVCKPLSC GWEITDTLCV
 GPVFTPASIM

Applications

Enzyme-linked Immunoabsorbent Assay
 Western Blot (Recombinant protein)
 Antibody Production
 Protein Array

Storage Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

 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

Storage Buffer 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name [ADC arginine decarboxylase \[Homo sapiens \]](#)

Official Symbol [ADC](#)

Synonyms AZI2; ODC-p; ODC1L

Gene ID [113451](#)

mRNA Refseq [NM_052998.2](#)

Protein Refseq [NP_443724.1](#)

MIM [608353](#)

UniProt ID [Q96A70](#)

 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