



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human AMD1 Protein  
**Catalog Number:** hRP-0482  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human S-adenosylmethionine decarboxylase proenzyme (AMD1) gene encodes an important intermediate enzyme in polyamine biosynthesis. The polyamines spermine, spermidine, and putrescine are low-molecular-weight aliphatic amines essential for cellular proliferation and tumor promotion. Two alternatively spliced transcript variants that encode different proteins have been identified. Recent data demonstrated that over-expression of AMD1 in rodent fibroblasts led to aggressive transformants.

Full-length human AMD1 gene was constructed with 17 N-terminal T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** AMD1 (ADOMEDC; AMD; SAMDC)  
**Accession Number:** NP\_001625  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Paasinen-Sohns,A., et al., *Chaotic neovascularization induced by aggressive fibrosarcoma cells overexpressing S-adenosylmethionine decarboxylase*. Int. J. Biochem. Cell Biol. 43 (3), 441-454 (2011)



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Kaul,D., et al., *Assessing prostate cancer growth with mRNA of spermine metabolic enzymes*. Cancer Biol. Ther. 9 (9), 736-742 (2010)

Reynolds,R., et al., *Plasma complement components and activation fragments: associations with age-related macular degeneration genotypes and phenotypes*. Invest. Ophthalmol. Vis. Sci. 50 (12), 5818-5827 (2009)

## **Applications**

1. May be used for in vitro human polyamine biosynthesis regulation study,
2. May be used as specific substrate protein for kinase and ubiquitin enzymes.
3. May be used as cancer biomarker for diagnosis application development.

## **Quality Control**

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFGSEAAHFFEGTEKLLLEVWFSRQQPDANQSGDLRTIPRSEWDILLKDVQ  
CSII SVTKTKDQ EAYVLS ESMFVSKRRFILKTCGTTLLLKALVPLLKLARDYSGFDSIQSFFY  
SRKNFMKPSHQGYPHRNFQEEIEFLNAIFPNGAAYCMGRMNSDCWYLYTLDFPESRVISQPDQT  
LEILMSELDPAVMDQFYMKDGVTAKDVTRESGIRDLIPGSVIDATMFNPCGYSMNGMKSDGTYW  
TIHITPEPEFSYVSFETNLSQTSYDDLIRKVVVEVFKPGKFVTTLFVNQSSKCRTVLASPQKIEG  
FKRLDCQSAMFNDYNFVFTSFAKKQQQQS