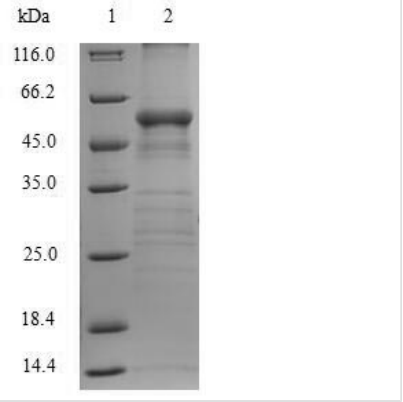
Recombinant Human Arginase-1 (ARG1)

Product Code	CSB-EP002005HU
Abbreviation	Recombinant Human ARG1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P05089
Alias	Liver-type arginase Type I arginase
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSAKSRTIGIIGAPFSKGQPRGGVEEGPTVLRKAGLLEKLKEQECDVKDYGDL PFADIPNDSPFQIVKNPRSVGKASEQLAGKVAEVKKNGRISLVLGGDHSLAIGSI SGHARVHPDLGVIWVDAHTDINTPLTTTSGNLHGQPVSFLLKELKGKIPDVPGF SWVTPCISAKDIVYIGLRDVDPGEHYILKTLGIKYFSMTEVDRLGIGKVMEETLS YLLGRKKRPIHLSFDVDGLDPSFTPATGTPVVGGLTYREGLYITEEIYKTGLLSG LDIMEVNPSLGKTPEEVTRTVNTAVAITLACFGLAREGNHKPIDYLNPPK
Research Area	Signal Transduction
Source	E.coli
Target Names	ARG1
Protein Names	Recommended name: Arginase-1 EC= 3.5.3.1 Alternative name(s): Liver-type arginase Type I arginase
Expression Region	1-322aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	61.7kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Entire Human Arginase-1/ARG1 cDNA (1-322aa) with an N-terminal GST-tag was expressed in E.coli. The forming protein is the Recombinant full-length Human ARG1 protein. The purity of this protein is greater than 90% as determined by SDS-PAGE. Under reducing conditions, the SDS-PAGE gel showed a molecular weight band of about 62 kDa. This recombinant ARG1 protein may be used for specific antibody production or in the studies of ARG-1-related signal transduction.

ARG1 is the last enzyme in the urea cycle and it promotes the conversion of arginine to urea and ornithine. Deficiency of ARG1 causes hyperargininemia/arginase deficiency, an autosomal recessive urea cycle disorder, in which the increased arginine levels result in toxicity. High ARG1 expression has been found in several cancers, such as breast cancer and colorectal cancer. Malgorzata Czystowska-Kuzmicz etc. demonstrated that ARG1 is expressed in ovarian tumors and facilitates ovarian carcinomas (OvCa). The levels of ARG-1 is related to poor prognosis. ARG1 is carried by OvCa-derived small extracellular vesicles (EVs). EVs carrying ARG1 contribute to systemic immune suppression in OvCa patients and suppresses T-cell proliferation in vitro.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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