Datasheet for ABIN7557676

Liver Arginase Protein (AA 1-323) (His tag)

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Overview

Quantity:	1 mg
Target:	Liver Arginase (ARG1)
Protein Characteristics:	AA 1-323
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Liver Arginase protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Arg1 Protein expressed in mammalian cells.
Sequence:	MSSKPKSLEI IGAPFSKGQP RGGVEKGPAA LRKAGLLEKL KETEYDVRDH GDLAFVDVPN DSSFQIVKNP RSVGKANEEL AGVVAEVQKN GRVSVVLGGD HSLAVGSISG HARVHPDLCV IWVDAHTDIN TPLTTSSGNL HGQPVSFLLK ELKGKFPDVP GFSWVTPCIS AKDIVYIGLR DVDPGEHYII KTLGIKYFSM TEVDKLGIGK VMEETFSYLL GRKKRPIHLS FDVDGLDPAF TPATGTPVLG GLSYREGLYI TEEIYKTGLL SGLDIMEVNP TLGKTAEEVK STVNTAVALT LACFGTQREG NHKPGTDYLK PPK **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	Liver Arginase (ARG1)
Alternative Name:	Arg1 (ARG1 Products)
Background:	Arginase-1 (EC 3.5.3.1) (Liver-type arginase) (Type I arginase),FUNCTION: Key element of the urea cycle converting L-arginine to urea and L-ornithine, which is further metabolized into metabolites proline and polyamides that drive collagen synthesis and bioenergetic pathways critical for cell proliferation, respectively, the urea cycle takes place primarily in the liver and, to a lesser extent, in the kidneys. {ECO:0000305}., FUNCTION: Functions in L-arginine homeostasis in nonhepatic tissues characterized by the competition between nitric oxide synthase (NOS) and arginase for the available intracellular substrate arginine. Arginine metabolism is a critical regulator of innate and adaptive immune responses. Involved in an antimicrobial effector pathway in polymorphonuclear granulocytes (PMN). Upon PMN cell death is liberated from the phagolysosome and depletes arginine in the microenvironment leading to suppressed T cell and natural killer (NK) cell proliferation and cytokine secretion (By similarity). In group 2 innate lymphoid cells (ILC2s) promotes acute type 2 inflammation in the lung and is involved in optimal ILC2 proliferation but not survival (PubMed:27043409). Plays a role in the immune response of alternatively activated or M2 macrophages in processes such as wound healing

Target Details

	and tissue regeneration, immune defense against multicellular pathogens and parasites, and immune suppression and allergic inflammation, the regulatory outcome seems to be organ specific (PubMed:7537672, PubMed:19360123, PubMed:20483789, PubMed:23552798, PubMed:23637937). In tumor-infiltrating dendritic cells (DCs) and myeloid-derived suppressor cells (MDSCs) plays a role in suppression of T cell-mediated antitumor immunity (PubMed:19414774, PubMed:23248265). {ECO:0000250|UniProtKB:P05089, ECO:0000269|PubMed:15313928, ECO:0000269|PubMed:19360123, ECO:0000269|PubMed:19414774, ECO:0000269|PubMed:20483789, ECO:0000269|PubMed:23248265, ECO:0000269|PubMed:23552798, ECO:0000269|PubMed:23637937, ECO:0000269|PubMed:27043409, ECO:0000269|PubMed:7537672}.
Molecular Weight:	34.8 kDa
UniProt:	Q61176
Pathways:	Cellular Response to Molecule of Bacterial Origin

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months