

## Product datasheet for TP304649

### Arginase 1 (ARG1) (NM\_000045) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human arginase, liver (ARG1), 20 µg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC204649 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MSAKSRTIGIIGAPFSKGQPRGGVEEGPTVLRKAGLLEKLKEQECDVKDYGDLPFADIPNDSPFQIVKNP  
RSVGKASEQLAGKVAEVKKNRISLVLGGDHSLAIGSISGHARVHPDLGVIWVDAHTDINTPLTTTSGNL  
HGQPVSFLLKELKGKIPDVPGFSWVTPCISAKDIVYIGLRDVPGEHYILKTLGIKYFSMTEVDRLGIGK  
VMEETLSYLLGRKKRPIHLSFDVDGLDPSFTPATGTPVVGGLTYREGLYITEEYKTGLLSGLDIMEVNP  
SLGKTPEEVTRTVNTAVAITLACFGLAREGNHKPIDYLNPPK

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-Myc/DDK

**Predicted MW:** 34.6 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Bioactivity:** Arginase activity verified in a biochemical assay: Arginase 1 (ARG1, TP304649) activity was measured in a colorimetric biochemical assay. Arginase 1 catalyzes the conversion of arginine to ornithine and urea. After incubation of the protein in a solution containing L-arginine, the reaction is stopped, and the urea concentration is measured by a chemical reaction that produces a colored product that absorbs at 430 nm. By measuring the absorbance at 430 nm and comparing to a standard, the specific activity of this preparation of ARG1 was calculated to be approximately 10U/mg.

Unit definition: 1 unit of ARG1 converts 1 µmole of L-arginine to ornithine and urea per minute at pH 9.5 and 37°C.

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.



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**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_000036](#)

**Locus ID:** 383

**UniProt ID:** [P05089](#)

**RefSeq Size:** 1475

**Cytogenetics:** 6q23.2

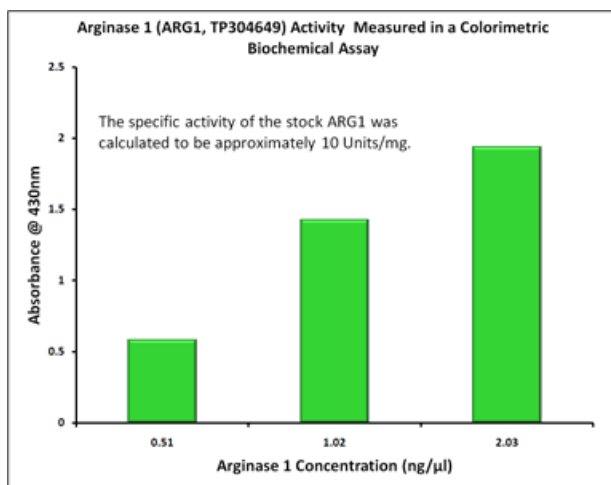
**RefSeq ORF:** 966

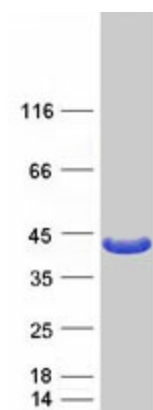
**Summary:** Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

**Protein Families:** Druggable Genome

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

## Product images:





Coomassie blue staining of purified ARG1 protein (Cat# TP304649). The protein was produced from HEK293T cells transfected with ARG1 cDNA clone (Cat# [RC204649]) using MegaTran 2.0 (Cat# [TT210002]).