

## Product datasheet for **AR09559PU-N**

### GCD / GCDH (45-438, His-tag) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	GCD / GCDH (45-438, His-tag) human recombinant protein, 50 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH MRPEFDWQDP LVLEEQLTTD EILIRDTFRT YCQERLMPRI</u> <u>LLANRNEVFH REIISEMGEL GVLGPTIKGY GCAGVSSVAY GLLARELERV DSGYRSAMSV</u> <u>QSSLVMHPIY AYGSEEQRQK YLPQLAKGEL LGCFGLTEPN SGSDPSSMET RAHYNSSNKS</u> <u>YTLNGTKTWI TNSPMADLFV VWARCEDGCI RGFLEKGM R GLSAPRIQ GK FSLRASATGM</u> <u>IIMDGVEVPE ENVLPGASSL GGPFGCLNNA RYGIWGV LG ASEFCLHTAR QYALDRMQFG</u> <u>VPLARNQLIQ KKLADMLTEI TLGLHACLQL GRLKDQDKAA PEMVSLLKRN NCGKALDIAR</u> <u>QARDMLGGNG ISDEYHVIRH AMNLEAVNTY EGTHDIHALI LGRAITGIQA FTASK</u>
Tag:	His-tag
Predicted MW:	45.8 kDa
Concentration:	lot specific
Purity:	>90% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 5 mM DTT, 200 mM NaCl
Preparation:	Liquid purified protein
Protein Description:	Recombinant GCDH protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	<u>NP_000150</u>
Locus ID:	2639
UniProt ID:	<u>Q92947</u> , <u>A0A024R7F9</u>


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**Cytogenetics:** 19p13.13

**Synonyms:** ACAD5; GCD

**Summary:** The protein encoded by this gene belongs to the acyl-CoA dehydrogenase family. It catalyzes the oxidative decarboxylation of glutaryl-CoA to crotonyl-CoA and CO(2) in the degradative pathway of L-lysine, L-hydroxylysine, and L-tryptophan metabolism. It uses electron transfer flavoprotein as its electron acceptor. The enzyme exists in the mitochondrial matrix as a homotetramer of 45-kD subunits. Mutations in this gene result in the metabolic disorder glutaric aciduria type 1, which is also known as glutaric acidemia type I. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 12. [provided by RefSeq, Mar 2013]

**Protein Families:** Druggable Genome

**Protein Pathways:** Fatty acid metabolism, Lysine degradation, Metabolic pathways, Tryptophan metabolism

### Product images:

