

Human GLS1, Recombinant

CATALOG NO: P1656-10 10 µg
P1656-50 50 µg

ALTERNATE NAMES: Glutaminase, cKGA, catalytic domain of KGA, Glutaminase kidney isoform, mitochondrial, KGA, GLS1, GAC, GAM, KGA

ACCESSION NUMBER: O94925 (aa 221-533)

SOURCE: *E. coli*

PURITY: ≥ 95% by SDS-PAGE

SPECIFIC ACTIVITY: ≥ 10 U/mg

MOL. WEIGHT: 36.7 KDa (with N-terminal His-tag)

FORMULATION: Liquid, in 50 mM tris-phosphate buffer, pH 8.0, 1 mM DTT, 35% glycerol

STORAGE CONDITIONS: For long term storage, aliquot and store at -70 °C for two years. Avoid repeated freezing and thawing cycles.

DESCRIPTION: Glutaminase (EC 3.5.1.2) is a mitochondrial enzyme that hydrolyzes glutamine producing glutamate and ammonia. GLS is one of the two key enzymes including glutamine synthetase that are responsible for glutamine homeostasis. Since glutamine is a major metabolic substrate involved in gluconeogenesis, its homeostasis is tightly controlled. Glutaminase has tissue-specific roles in multiple organs, with the isoform GLS1 being expressed in kidneys and brain, and GLS2 being expressed in the liver. It is involved in maintenance of acid-base homeostasis by producing ammonia during renal acidosis in kidneys and regulation of glutamate, which acts as a neurotransmitter in the brain. BioVision's recombinant GLS1 is catalytic domain of the original GLS1, which shows greater activity and excellent stability.

BIOLOGICAL ACTIVITY: Biological activity was performed using BioVision's Glutaminase Activity Assay Kit (Colorimetric) (Cat# K2067-100).

UNIT DEFINITION: One unit of GSL1 is defined as the amount of enzyme that produces 1 µmol of glutamate per minute at 37 °C under the assay conditions.

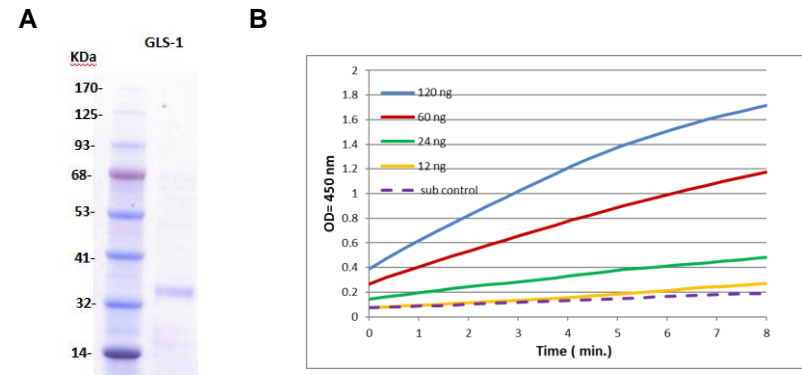


Fig. A. SDS-PAGE (4-20%) of recombinant GLS1: 3 µg of Recombinant GLS1 was loaded under reducing conditions and stained with Coomassie Blue. **Fig. B. Enzyme Activity Assay:** GLS1 activity was measured by its ability to hydrolyze glutamine to glutamate using BioVision's Glutaminase Activity Assay Kit (Colorimetric) (Cat # K2067-100).

RELATED PRODUCTS:

- PicoProbe™ Glutaminase (GLS) Activity Assay Kit (Fluorometric) (Cat# K455)
- Glutaminase (GLS1) Inhibitor Screening Kit (Fluorometric) (Cat# K479)
- Glutaminase Activity Assay Kit (Colorimetric) (Cat# K2067)
- Glutaminase C-IN-1 (968) (Cat# B1198)
- CB-839 (Cat# B1179)
- BPTES (Cat# B2165)

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