Argininosuccinate Synthetase (ASS1), *E. coli*, Recombinant

CATALOG NO:	P1412-10 P1412-50	10 mU 50 mU
SOURCE:	*E.coli*	
PURITY:	> 95% by SDS-PAGE	
GENE SEQ.:	*E. coli* (aa 1 – 447)	
MOL. WEIGHT:	50 kDa with N-terminal 6X-His tag	
FORM:	Lyophilized	
FORMULATION:	Proprietary Buffer	
RECONSTITUTION:	Reconstitute the lyophilized protein in H_2O with concentration of 1.0 mU/ml. Incubate the reconstituted protein at 25 °C for 15 minutes.	
STORAGE CONDITIONS:	Aliquot and store enzyme at -20°C. Avoid repeated freeze-thaw cycles.	
DESCRIPTION:	Argininosuccinate Synthetase is part of the urea cycle. It catalyzes aspartate, citrulline, and ATP to form argininosuccinate. Mutations in the enzyme cause Citrullinemia, preventing the liver from processing nitrogen to urea. Lack of argininosuccinate synthase has also been observed in pancreatic cancer, liver cancer, melanoma.	
SPECIFIC ACTIVITY:	This enzyme has a specific activity of ≥ 500 mU/mg based on its ability to convert citrulline to argininosuccinate, which can be detected fluorometrically at Ex/Em = 535/595 using BioVision's Methionine Assay Kit (K442).	
UNIT DEFINITION:	One unit is the amount of enzyme that will hydrolyze 1.0 µmole of citrulline to argininosuccinate per minute at pH 7.0 and 37℃.	

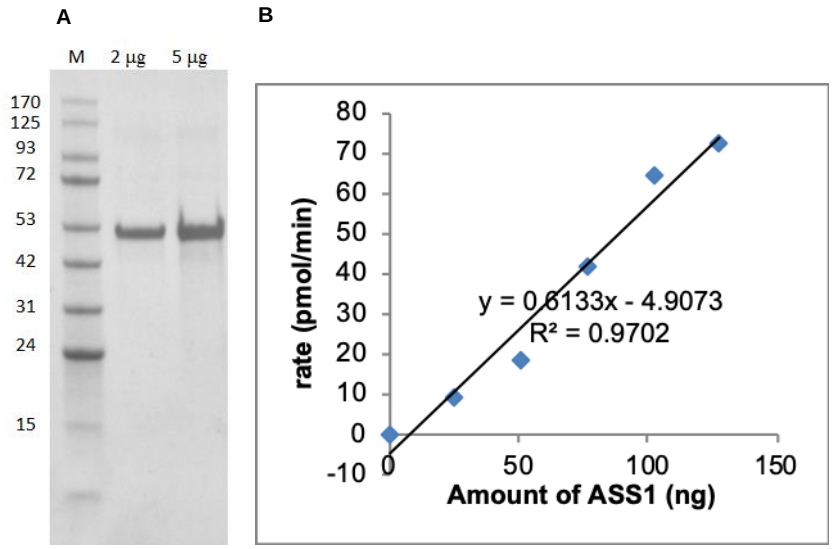

Fig A. SDS-PAGE (4-20%) recombinant ASS1: Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. Lane M-MW marker

Fig B. ASS1 activity assay: The specific activity of ASS1 is 500 mU/mg based on its ability to convert citrulline to argininosuccinate (BV Cat. No. K442)

RELATED PRODUCTS:

- Methionine Assay Kit (Fluorometric) **(Cat. No. K442)**
- Mycoplasma Arginine Deiminase (ADI), Recombinant Protein **(Cat. No. P1412)**
- Glutamate Dehydrogenase Activity Colorimetric Assay Kit **(Cat. No. K729)**
- R162 **(Cat. No. B1180)**
- Glutamate Carboxypeptidase II Inhibitor Screening Kit (Fluorometric) **(Cat. No. K440)**

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