

## SPEA Protein, E.coli (His)

<b>Cat. No.:</b>	HY-P71695
<b>Synonyms:</b>	speA; b2938; JW2905; Biosynthetic arginine decarboxylase; ADC; EC 4.1.1.19
<b>Species:</b>	E.coli
<b>Source:</b>	E. coli
<b>Accession:</b>	P21170 (3D-656E)
<b>Gene ID:</b>	947432
<b>Molecular Weight:</b>	Approximately 77.4 kDa

### PROPERTIES

#### AA Sequence

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DDMSMGLPSS   AGEHGVLRSM   QEVAMSSQEA   SKMLRITYNIA
WVGNNYYDVN   ELGHISVCPD   PDVPEARVDL   AQLVKTREAQ
GQRLPALFCF   PQILQHRLRS   INAAFKRARE   SYGYNGDYFL
VYPIKVNQHR   RVIESLIHSG   EPLGLEAGSK   AELMAVLAHA
GMTRSVIVCN   GYKDREYIRL   ALIGEKMGHK   VYLVIEKMSE
IAIVLDEAER   LNVVPRLGVR   ARLASQGS GK   WQSSGGEKSK
FGLAATQVLQ   LVETLREAGR   LDSLQLLHFH   LGSQMANIRD
IATGVRESAR   FYVELHKLGV   NIQCFDVGGG   LGVDYEGTRS
QSDCSVNYGL   NEYANNIIWA   IGDACEENGL   PHPTVITESG
RAVTAHHTVL   VSNII GVERN   EYTVPTAPAE   DAPRALQSMW
ETWQEMHEPG   TRRSLREWLH   DSQMDLHDIH   IGYSSGIFSL
QERAWAEQLY   LSMCHEVQKQ   LDPQNRARHP   IIDELQERMA
DKMYVNFSLF   QSMPDWAGID   QLFVPLPLEG   LDQVPERRAV
LLDITCDS DG   AIDHYIDGDG   IATTMPPEY   DPENPPMLGF
FMVGAYQEIL   GNMHNLFGDT   EAVDVVFVFPD   GSVEVELSDE
GDTVADMLQY   VQLDPKTLT   QFRDQVKKTD   LDAELQQQFL
EEFEAGLYGY   TYLE
  
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**Appearance** Lyophilized powder.

**Formulation** Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.

**Endotoxin Level** <1 EU/μg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O.

**Storage & Stability** Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

SPEA, also known as agmatine ureohydrolase, is an enzyme that plays a central role in the biosynthesis of agmatine from arginine. Specifically, SPEA catalyzes the conversion of arginine into agmatine, a process crucial in the metabolism of nitrogen-containing compounds. This enzymatic activity is a key step in the arginine catabolic pathway, contributing to the generation of agmatine, a biogenic amine with diverse physiological functions. It has to underscore SPEA's role in the synthesis of agmatine, shedding light on its importance in cellular nitrogen metabolism and the broader implications of agmatine in various biological processes.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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