

FtsZ Protein, E.coli (His-SUMO)

Cat. No.:	HY-P71495
Synonyms:	ftsZ; c0113Cell division protein FtsZ
Species:	E.coli
Source:	E. coli
Accession:	P0A9A7 (M1-D383)
Gene ID:	58460765
Molecular Weight:	Approximately 56.3 kDa

PROPERTIES

AA Sequence	M F E P M E L T N D A V I K V I G V G G G G G N A V E H M V R E R I E G V E F F A V N T D A Q A L R K T A V G Q T I Q I G S G I T K G L G A G A N P E V G R N A A D E D R D A L R A A L E G A D M V F I A A G M G G G T G T G A A P V V A E V A K D L G I L T V A V V T K P F N F E G K K R M A F A E Q G I T E L S K H V D S L I T I P N D K L L K V L G R G I S L L D A F G A A N D V L K G A V Q G I A E L I T R P G L M N V D F A D V R T V M S E M G Y A M M G S G V A S G E D R A E E A A E M A I S S P L L E D I D L S G A R G V L V N I T A G F D L R L D E F E T V G N T I R A F A S D N A T V V I G T S L D P D M N D E L R V T V V A T G I G M D K R P E I T L V T N K Q V Q Q P V M D R Y Q Q H G M A P L T Q E Q K P V A K V V N D N A P Q T A K E P D Y L D I P A F L R K Q A D
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4
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 ₂ 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.

DESCRIPTION

Background	FtsZ (Filamenting temperature-sensitive mutant Z) protein is an indispensable component of cell division, playing a central role in the formation of the contractile ring structure known as the Z ring at the future site of cell division. The assembly of this ring is crucial for regulating the timing and location of cell division. Functionally, the FtsZ ring serves to recruit various
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other cell division proteins to the septum, facilitating the synthesis of a new cell wall between dividing cells. As a GTP-binding protein with intrinsic GTPase activity, FtsZ exists as a homodimer and polymerizes to create a dynamic ring structure in a strictly GTP-dependent manner. This dynamic interaction with GTP and its ability to form the Z ring are essential features, highlighting FtsZ's pivotal role in orchestrating the complex process of bacterial cell division. Moreover, FtsZ directly interacts with several other division proteins, emphasizing its central role in coordinating the molecular events necessary for successful cell division (

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

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