

Chaperone SurA Recombinant Protein | surA recombinant protein

Recombinant Escherichia coli Chaperone SurA

CATALOG #
AAA115287

HOST
E Coli or Yeast or Baculovirus or Mammalian Cell

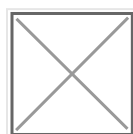
PRODUCT SYNONYMS

Chaperone SurA; Recombinant Escherichia coli Chaperone SurA; Peptidyl-prolyl cis-trans isomerase SurA (EC:5.2.1.8); PPIase SurA; Rotamase SurA; Survival protein A; surA recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	21-428aa; Full Length
Sequence	APQVVDKVAA VVNGGVLES DVDGLMQSVK LNAAQARQQL PDDATLRHQI MERLIMDQII LQMGQKMGVK ISDEQLDQAI ANIAKQNNMT LDQMRSRLAY DGLNYNTYRN QIRKEMIISE VRNNEVRRRI TILPQEVESL AQQVGNQND A STELNLSHIL IPLPENPTSD QVNEAESQAR AIVDQARNGA DFGKLAIAHS ADQQALNGGQ MGWGRIQELP GIFAQALSTA KKGDIVGPIR SGVGFHILKV NDLRGESKNI SVTEVHARHI LLKPSPIMTD EQARVKLEQI AADIKSGKTT FAAAAKEFSQ DPGSANQGGD LGWATPDIFD PAFRDALTRL NKGQMSAPVH SSFGWHLIEL LDTRNVDKTD AAQKDRAYRM LMNRKFSEEA ASWMQEQRAS AYYVKILSN
Sequence Length	428
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for surA recombinant protein

Chaperone involved in the correct folding and assembly of outer membrane proteins, such as OmpA, OmpF and LamB. Recognizes specific patterns of aromatic residues and the orientation of their side chains, which are found more frequently in integral outer membrane proteins. May act in both early periplasmic and late outer membrane-associated steps of protein maturation. Essential for the survival of E Coli in stationary phase. Required for pilus biogenesis.

References	Almiron M., Tormo A., Kolter R.Unpublished observations (JAN-1993) Systematic sequencing of the Escherichia coli genome analysis of the 0-2.4 min region.Yura T., Mori H., Nagai H., Nagata T., Ishihama A., Fujita N., Isono K., Mizobuchi K., Nakata A.Nucleic Acids Res. 20:3305-3308(1992) The complete genome sequence of Escherichia coli K-12.Blattnr F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V., Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F., Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J., Mau B., Shao Y.Science 277:1453-1462(1997) Highly accurate genome sequences of Escherichia coli K-12 strains MG1655 and W3110.Hayashi K., Morooka N., Yamamoto Y., Fujita K., Isono K., Choi S., Ohtsubo E., Baba T., Wanner B.L., Mori H., Horiuchi T.Mol. Syst. Biol. 2:E1-E5(2006) Overlap between pdxA and ksgA in the complex pdxA-ksgA-apaG-apaH operon of Escherichia coli K-12.Roa B.B., Connolly D.M., Winkler M.E.J. Bacteriol. 171:4767-4777(1989) N-hexane sensitivity of Escherichia coli due to low expression of ostA/imp by insertion of IS2 and identification of the gene product as an outer membrane protein.Abe S., Okutsu T., Negishi T., Nakajima H., Aono R.Comparing the predicted and observed properties of proteins encoded in the genome of Escherichia coli K-12.Link A.J., Robison K., Church G.M.Electrophoresis 18:1259-1313(1997) SurA assists the folding of Escherichia coli outer membrane proteins.Lazar S.W., Kolter R.J. Bacteriol. 178:1770-1773(1996) Protein identification with N and C-terminal sequence tags in proteome projects.Wilkins M.R., Gasteiger E., Tonella L., Ou K., Tyler M., Sanchez J.-C., Gooley A.A., Walsh B.J., Bairoch A., Appel R.D., Williams K.L., Hochstrasser D.F.J. Mol. Biol. 278:599-608(1998) surA, an Escherichia coli gene essential for survival in stationary phase.Tormo A., Almiron M., Kolter R.J. Bacteriol. 172:4339-4347(1990) New components of protein folding in extracytoplasmic compartments of Escherichia coli SurA, FkpA and Skp/OmpH.Missiakas D., Betton J.-M., Raina S.Mol. Microbiol. 21:871-884(1996) SurA, a periplasmic protein with peptidyl-prolyl isomerase activity, participates in the assembly of outer membrane porins.Rouviere P.E., Gross C.A.Genes Dev. 10:3170-3182(1996) The SurA periplasmic PPIase lacking its parvulin domains functions in vivo and has chaperone activity.Behrens S., Maier R., de Cock H., Schmid F.X., Gross C.A.EMBO J. 20:285-294(2001) The periplasmic molecular chaperone protein SurA binds a peptide motif that is characteristic of integral outer membrane proteins.Bitto E., McKay D.B.J. Biol. Chem. 278:49316-49322(2003) The periplasmic chaperone SurA exploits two features characteristic of integral outer membrane proteins for selective substrate recognition.Hennecke G., Nolte J., Volkmer-Engert R., Schneider-Mergener J., Behrens S.J. Biol. Chem. 280:23540-23548(2005) Periplasmic peptidyl prolyl cis-trans isomerases are not essential for viability, but SurA is required for pilus biogenesis in Escherichia coli.Justice S.S., Hunstad D.A., Harper J.R., Duguay A.R., Pinkner J.S., Bann J., Frieden C., Silhavy T.J., Hultgren S.J.J. Bacteriol. 187:7680-7686(2005) Crystallographic structure of SurA, a molecular chaperone that facilitates folding of outer membrane porins.Bitto E., McKay D.B.Structure 10:1489-1498(2002)
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NCBI AND UNIPROT INFORMATION

NCBI GI #	16128047
NCBI GeneID	944812
NCBI Accession #	NP_414595.1
NCBI GenBank Nucleotide #	NC_000913.3
UniProt Accession #	P0ABZ6; P21202; P75630; Q8KIP6; Q8KMY0
Molecular Weight	47.1 kDa
NCBI Official Full Name	peptidyl-prolyl cis-trans isomerase (PPIase)
NCBI Official Symbol	surA
NCBI Official Synonym Symbols	ECK0054; JW0052
NCBI Protein Information	peptidyl-prolyl cis-trans isomerase (PPIase)
UniProt Protein Name	Chaperone SurA
UniProt Gene Name	surA
UniProt Synonym Gene Names	PPIase SurA
UniProt Entry Name	SURA_ECOLI

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

