Data Sheet (Cat.No.TMPH-00700)

TargetMol

BamA Protein, E. coli, Recombinant (His & Myc)

General Information

Synonyms: Outer membrane protein assembly factor BamA;bamA;yaeT;yzzN;yzzY;Omp85

Protein Construction: 175-424 aa

Species: E. coli

Expression Host: E. coli

Accession: P0A940

Molecular Weight: 36.0 kDa (predicted)

AA Sequence: AEIQQINIVGNHAFTTDELISHFQLRDEVPWWNVVGDRKYQKQKLAGDLETLRSYYLDRGYARFNIDSTQVSL TPDKKGIYVTVNITEGDQYKLSGVEVSGNLAGHSAEIEQLTKIEPGELYNGTKVTKMEDDIKKLLGRYGYAYPR VQSMPEINDADKTVKLRVNVDAGNRFYVRKIRFEGNDTSKDAVLRREMRQMEGAWLGSDLVDQGKERLNR LGFFETVDTDTQRVPGSPDQVDVVYKVKERNTG

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 90% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Part of the outer membrane protein assembly complex (Bam), which is involved in assembly and insertion of beta-barrel proteins into the outer membrane. Constitutes, with BamD, the core component of the assembly machinery. Efficient substrate folding and insertion into the outer membrane requires all 5 subunits. A lateral gate may open between the first and last strands of the BamA beta-barrel that allows substrate to insert into the outer

membrane; comparison of the structures of complete and nearly complete Bam complexes show there is considerable movement of all 5 proteins.; (Microbial infection) Acts as a receptor for CdiA-EC93, the contact-dependent growth inhibition (CDI) effector of E.coli strain EC93; antibodies against extracellular epitopes decrease CDI. Its role in CDI is independent of the other Bam complex components. Is not the receptor for CdiA from E.coli strain 536 / UPEC, which does not have the same mode of toxicity as CdiA from strain EC93; the decreased expression of bamA101 in some experiments decreases the level of outer membrane proteins in general. Susceptibility to CdiA-EC93 is dependent on E.coli BamA; replacing BamA with the gene from S.typhimurium LT2, E. cloacae ATCC 13047 or D.dadantii 3937 renders cells resistant to CdiA-EC93. Cells with BamA from another bacteria no longer form CdiA-EC93-induced aggregates with EC93 cells. A chimera in which E.cloacae extracellular loops 6 and 7 are replaced with loops 6 and 7 from E.coli is susceptible to CdiA-EC93 and to CdiA-CT from strain 536 / UPEC.

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