

IHF-alpha Protein, E. coli, Recombinant (His & Myc)

General Information

Synonyms:	ihfA;Integration host factor subunit alpha;IHF-alpha;hid;himA
Protein Construction:	2-99 aa
Species:	E. coli
Expression Host:	E. coli
Accession:	P0A6X7
Molecular Weight:	18.7 kDa (predicted)
AA Sequence:	ALTKAEMSEYLFDKLGLSKRDAKELVELFFEEIRRALENGEQVKLSGFGNFDLRDKNQRPGRNPKTGEDIPITARRVVTFRPGQKLKSRVENASPKDE

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:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

One of the 2 subunits of integration host factor (IHF), a specific DNA-binding protein that functions in genetic recombination as well as in transcriptional and translational control. Binds to hundreds of transcriptionally inactive, AT-rich DNA sites, approximately half its binding sites are in non-coding DNA, which only accounts for

about 10% of the genome.; Plays a crucial role in the lysogenic life cycle of bacteriophage lambda, as it is required not only in the recombination reaction, which inserts lambda DNA into the E.coli chromosome, but also for the synthesis of int and ci repressor, two phage proteins necessary for DNA insertion and repression, respectively. The synthesis of int and ci proteins is regulated indirectly by IHF via translational control of the lambda cII protein.; Has an essential role in conjugative DNA transfer (CDT), the unidirectional transfer of ssDNA plasmid from a donor to a recipient cell. It is the central mechanism by which antibiotic resistance and virulence factors are propagated in bacterial populations. Part of the relaxosome, which facilitates a site- and strand-specific cut in the origin of transfer by Tral, at the nic site. Relaxosome formation requires binding of IHF and TraY to the oriT region, which then facilitates binding of Tral.

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