Data Sheet (Cat.No.TMPH-00729)

TargetMol

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

General Information

Synonyms:	rpoH;hin;RNA polymerase sigma-32 factor;fam;htpR;Heat shock regulatory protein F33.4; RNA polymerase sigma factor RpoH
Protein Construction:	1-284 aa
Species:	E. coli
Expression Host:	E. coli
Accession:	P0AGB3
Molecular Weight:	39.9 kDa (predicted)
AA Sequence:	MTDKMQSLALAPVGNLDSYIRAANAWPMLSADEERALAEKLHYHGDLEAAKTLILSHLRFVVHIARNYAGYG LPQADLIQEGNIGLMKAVRRFNPEVGVRLVSFAVHWIKAEIHEYVLRNWRIVKVATTKAQRKLFFNLRKTKQR LGWFNQDEVEMVARELGVTSKDVREMESRMAAQDMTFDLSSDDDSDSQPMAPVLYLQDKSSNFADGIED DNWEEQAANRLTDAMQGLDERSQDIIRARWLDEDNKSTLQELADRYGVSAERVRQLEKNAMKKLRAAIEA

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

Sigma factors are initiation factors that promote the attachment of RNA polymerase to specific initiation sites and are then released. This sigma factor is involved in regulation of expression of heat shock genes. Intracellular concentration of free RpoH protein increases in response to heat shock, which causes association with RNA

polymerase (RNAP) and initiation of transcription of heat shock genes, including numerous global transcriptional regulators and genes involved in maintaining membrane functionality and homeostasis. RpoH is then quickly degraded, leading to a decrease in the rate of synthesis of heat shock proteins and shut-off of the heat shock response.

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