

## Sensor histidine kinase NatK Protein, *Bacillus subtilis* (Cell-Free, His)

Cat. No.:	HY-P702431
Synonyms:	Sensor histidine kinase NatK
Species:	Others
Source:	<i>E. coli</i> Cell-free
Accession:	P70954 (M1-K318)
Gene ID:	938382
Molecular Weight:	36.6 kDa

### PROPERTIES

AA Sequence	<pre> MITLFQCLYL  ILFSFICYQG  AA AF SHSTAA  SWLAAALGAA AAGLYIWNTK  RVWKHCSSGL  CAWIAVIQVM  SVGVVLTIGTD IMPVLCVIAI  FAGCEGLRIG  QSALQARLSD  QIDKLTQAEQ HANQMLIDVR  SRNHDTMKHI  TAIKSAQPKA  DTQAYIQNWA DQYSQYDRFL  KGENAYVAGV  LYDFLEKARA  SNVSVSLHMH TPLSSLPFSP  ADQVSLVGNL  LENA LDSAAE  AREKAEIKLE TSLRSGLYVL  TCENSTPGMD  PKVLDTIYQS  FGRSTKNGAH EGMGTYIIQK  LVKGA FGRLD  FTYRHPIFRL  EIKIPFQK           </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
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 <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	Sensor histidine kinase NatK Protein, a component of the two-component regulatory system NatK/NatR, functions as a positive regulator in the control of the natAB operon expression. This protein has the potential to phosphorylate NatR, highlighting its role in mediating signal transduction within the bacterial cell. The NatK/NatR system represents a molecular
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mechanism employed by the cell to modulate gene expression, emphasizing the intricate regulatory processes orchestrated by sensor histidine kinases in bacterial signaling pathways.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA