

HspX, Recombinant Protein Reference Standard

Catalog No. NR-31384

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Contributor:

BEI Resources or NIH - TB Vaccine Testing and Research Materials Contract

Manufacturer:

Karen Dobos, Ph.D., Colorado State University, Fort Collins, Colorado, USA and NIH - TB Vaccine Testing and Research Materials Contract

Product Description:

NR-31384 is a recombinant form of the heat shock protein HspX (also referred to as α -crystalline) from *Mycobacterium tuberculosis*.¹ The recombinant protein consists of the native protein sequence in addition to a hexa-histidine tag. HspX was expressed in *Escherichia coli* and purified using standard chromatographic techniques followed by endotoxin removal procedures.

Note: This protein is provided as a reference standard and should be ordered with the corresponding plasmid (pMRLB.15; NR-13274).

Material Provided:

Each vial contains approximately 1 mg of lyophilized NR-31384 in 10 mM ammonium bicarbonate.

Note: NR-31384 is soluble in 100 mM to 500 mM aqueous buffered salt solutions, such as phosphate buffered saline. A 10 mM ammonium bicarbonate solution can also be used.

Packaging/Storage:

NR-31384 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: HspX, Recombinant Protein Reference Standard, NR-31384."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. TubercuList: [Rv2031c](#)
2. Sherman, D. R., et al. "Regulation of the *Mycobacterium tuberculosis* Hypoxic Response Gene Encoding Alpha-Crystallin." Proc. Natl. Acad. Sci. USA 98 (2001): 7534-7539. PubMed: 11416222.
3. Dejardin, L. E., et. al. "Microaerophilic Induction of the Alpha-Crystallin Chaperone Protein Homologue (hspX) mRNA of *Mycobacterium tuberculosis*." J. Bacteriol. 183 (2001): 5311-5316. PubMed: 11514514.

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