

Intimin Alpha C-Terminal Extracellular Domain from *Escherichia coli* O127:H6 with N-Terminal Histidine Tag, Expressed in *Escherichia coli*

Catalog No. NR-12193

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Contributor and Manufacturer:

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Product Description:

NR-12193 is a recombinant form of the C-terminal extracellular domain of the *Escherichia coli* (*E. coli*) O127:H6 outer membrane protein intimin alpha. Intimin, encoded by the *eaeA* gene, is an adhesin that is required for adherence of enteropathogenic *E. coli* (EPEC) to human epithelial cells and colonization of experimentally infected animals.^{1,2} The protein sequence is shown in Table 1 and includes an N-terminal hexa-histidine tag and amino acid residues of intimin alpha from EPEC O127:H6, strain E2348/69. The recombinant protein was expressed in *E. coli* and purified by nickel affinity chromatography. NR-12193 has a theoretical molecular weight of 42,717 daltons.

Material Provided:

Each vial contains approximately 500 µg of NR-12193 in PBS. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-12193 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-12193 reacts with rabbit polyclonal antibody to *E. coli* intimin gamma (BEI Resources NR-12194) as shown by western blot analysis. Note: Antiserum developed against intimin gamma subtype also reacts with other intimin subtypes.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Intimin Alpha C-terminal Extracellular Domain from *Escherichia coli* O127:H6 with N-Terminal Histidine Tag, Expressed in *Escherichia coli*, NR-12193."

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/bmb15/index.htm.

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References:

1. Sinclair, J. F. and A. D. O'Brien. "Intimin Types Alpha, Beta, and Gamma Bind to Nucleolin with Equivalent Affinity but Lower Avidity Than to the Translocated Intimin Receptor." J. Biol. Chem. 279 (2004): 33751-33758. PubMed: 15173179.
2. A. D. O'Brien and J. F. Sinclair, personal communication.

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Table 1 - Predicted Protein Sequence					
1	<u>MRGSHHHHHH</u>	<u>IDPHASSVPR</u>	VDQVGVDFT	ADKTSKADG	TEAITYTATV
51	KKNGVAQANV	PVSFNIVSGT	AVLSANSANT	NGSGKATVTL	KSDKPGQVVV
101	SAKTAEMTSA	LNANAVIFVD	QTKASITEIK	ADKTTAVANG	QDAITYTVKV
151	MKGDKPVSQ	EVTFTTTLGK	LSNSTEKDT	NGYAKVTLTS	TPGKSLVSA
201	RVSDVAVDVK	APEVEFFTL	TIDDGNIEIV	GTGVKGLPT	VWLQYGQVNL
251	KASGGNGKYT	WRSANPAIAS	VDASSGQVTL	KEKGTTTISV	ISSDNQTATY
301	TIATPNSLIV	PNMSKRVTYN	DAVNTCKNFG	GKLPSSQNEL	ENFKAWGAA
351	NKYEYKSSQ	TIISWVQQT	QDAKSGVAST	YDLVKQNLN	NIKASESNAY
401	ATCVK				

Non-intimin residues are underlined.