

## Flagellin Protein, *Listeria monocytogenes* (His)

Cat. No.:	HY-P75185
Synonyms:	<i>Listeria monocytogenes</i> flaA Protein; flaA
Species:	Others
Source:	<i>E. coli</i>
Accession:	WP_003724427.1 (M1-S287)
Gene ID:	/
Molecular Weight:	33-37 kDa

### PROPERTIES

AA Sequence	<pre> MKVNTNIIISL   KTQEYLRKNN   EGMTQAQERL   ASGKRINSSL DDAAGLAVVT    RMNVKSTGLD   AASKNSSMGI   DLLQTADSAL SSMSSILQRM    RQLAVQSSNG   SFSDedrKQY   TAEFGSLIKE LDHVADTTNY    NNIKLLDQTA   TGAATQVSIQ   ASDKANDLIN IDLfNAKGLS    AGTITLGSGS   TVAGYSALSV   ADADSSQEAT EAIDELINNI    SNGRALLGAG   MSRLSYNVSN   VNNQSIATKA SASSIEDADM    AAEMSEMTKY   KILTQTSISM   LSQANQTPQM LTQLINS           </pre>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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.
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	Flagellin is the subunit protein which polymerizes to form the filaments of bacterial flagella. Flagellin is a natural immune agonist that activates innate immunity and then stimulates the adaptive immune response. It is expressed in many types of immune cells, including epithelial cells, polymorphonuclear neutrophils, natural killer (NK) cells, myeloid dendritic cells (mDCs), monocytes, Langerhans cells, macrophages and T cells. Flagellin, as an adjuvant, can induce an enhanced antigen-
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specific immune response. Flagellin directly activates a number of immune and non-immune cells, including T, B, DCs, NK and non-lymphoid cells (macrophages, epithelial, fibroblasts, stromal cells and neutrophils), through TLR5. The cumulative effect of this activation is the augmentation of immune responses through the generation of more potent antibodies and a Th1 response. In addition, it has anti-tumor and radioprotective activity and shows great potential in combating tumor growth and radiation-related tissue damage<sup>[1][2]</sup>.

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

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