Proteins





Product Data Sheet

Flagellin Protein, Listeria monocytogenes (His)

Cat. No.: HY-P75185

Synonyms: Listeria monocytogenes flaA Protein; flaA

Species: E. coli Source:

WP_003724427.1 (M1-S287) Accession:

Gene ID:

33-37 kDa Molecular Weight:

PROPERTIES

AA Sequence	AA	Seq	uen	ce
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MKVNTNIISL KTQEYLRKNN EGMTQAQERL ASGKRINSSL DDAAGLAVVT RMNVKSTGLD AASKNSSMGI DLLQTADSAL SSMSSILQRM RQLAVQSSNG SFSDEDRKQY TAEFGSLIKE LDHVADTTNY NNIKLLDQTA TGAATQVSIQ ASDKANDLIN AGTITLGSGS IDLFNAKGLS TVAGYSALSV ADADSSQEAT EAIDELINNI SNGRALLGAG MSRLSYNVSN VNNQSIATKA SASSIEDADM AAEMSEMTKY KILTQTSISM LSQANQTPQM

LTQLINS

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.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH₂O.

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 antigenspecific 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^{[1][2]}.

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

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