HB220302

Recombinant Flagellin, His (Flagellin, His)

Product Information

Product Name	Cat#	Size
Recombinant Flagellin, His (Flagellin, His)	92531ES10	10μg
	92531ES60	100 μg
	92531ES76	500 μg

Product Description

The role of flagella and motility in the attachment of the foodborne pathogen Listeria monocytogenes to various surfaces is mixed with some systems requiring flagella for an interaction and others needing only motility for cells to get to the surface. In nature this bacterium is a saprophyte and contaminated produce is an avenue for infection. Previous studies have documented the ability of this organism to attach to and colonize plant tissue. Motility mutants were generated in three wild type strains of L. monocytogenes by deleting either FlaA, the gene encoding flagellin, or motAB, genes encoding part of the flagellar motor, and tested for both the ability to colonize sprouts and for the fitness of that colonization. The motAB mutants were not affected in the colonization of alfalfa, radish, and broccoli sprouts; however, some of the FlaA mutants showed reduced colonization ability. The best colonizing wild type strain was reduced in colonization on all three sprout types as a result of a FlaA deletion. A mutant in another background was only affected on alfalfa. The third, a poor alfalfa colonizer was not affected in colonization ability by any of the deletions. Fitness of colonization was measured in experiments of competition between mixtures of mutant and parent strains on sprouts. Here the FlaA and motAB mutants of the three strain backgrounds were impaired in fitness of colonization of alfalfa and radish sprouts, and one strain background showed reduced fitness of both mutant types on broccoli sprouts. Together these data indicate a role for flagella for some strains to physically colonize some plants, while the fitness of that colonization is positively affected by motility in almost all cases.

Product Properties

Synonyms	flaA Protein, Listeria monocytogenes.
Accession	P06179
GeneID	1253480
Source	E.coli-derived Flagellin,with Leu, Glu and 6 × His at C-terminus, with an N-terminal Met.
Molecular Weight	Approximately 52.7 kDa
AA Sequence	MAQVINTNSL SLLTQNNLNK SQSALGTAIE RLSSGLRINS AKDDAAGQAI ANRFTANIKG LTQASRNAND GISIAQTTEG ALNEINNNLQ RVRELAVQSA NSTNSQSDLD SIQAEITQRL NEIDRVSGQT QFNGVKVLAQ DNTLTIQVGA NDGETIDIDL KQINSQTLGL DTLNVQQKYK VSDTAATVTG YADTTIALDN STFKASATGL GGTDQKIDGD LKFDDTTGKY YAKVTVTGGT GKDGYYEVSV DKTNGEVTLA GGATSPLTGG LPATATEDVK NVQVANADLT EAKAALTAAG VTGTASVVKM SYTDNNGKTI DGGLAVKVGD DYYSATQNKD GSISINTTKY TADDGTSKTA LNKLGGADGK TEVVSIGGKT YAASKAEGHN FKAQPDLAEA AATTTENPLQ KIDAALAQVD TLRSDLGAVQ NRFNSAITNL GNTVNNLTSA RSRIEDSDYA TEVSNMSRAQ ILQQAGTSVL AQANQVPQNV LSLLRLEHHH HHH
Tag	with an C-terminal His
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Data is not available.
Endotoxin	< 1.0 EU per 1μg of the protein by the LAL method.

Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20℃ to -80℃ for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.