Data Sheet (Cat.No.TMAY-02859)

TargetMol

Anti-Flagellin Antibody (7U52)

Product Details

Ig Type:	Mouse IgG1
Reactivity:	Listeria monocytogenes
Conjugation:	Unconjugated
Clone:	7U52
Purification:	Protein A

Applications

Verified Activity:	1. Anti-Listeria monocytogenes flagellin / flaA mouse monoclonal antibody at 1:1000 dilution. -Sample:Listeria monocytogenes flagellin / flaA Recombinant Protein -Lane A: 200ng -Lane B: 50ng -Secondary -Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. 2. Anti-Listeria monocytogenes flagellin / flaA mouse monoclonal antibody at 1:1000 dilution. -Sample:Listeria monocytogenes flagellin / flaA Recombinant Protein -Lane A: 10ng -Secondary -Goat Anti-Mouse IgG (H+L)/HRP at 1/10000 dilution. -Developed using the ECL technique. -Performed under reducing conditions.
Application:	ELISA,WB
Recommended	WB: 1:1000-1:5000; ELISA: 1:1000-1:2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Listeria monocytogenes Listeria monocytogenes flagellin / FlaA protein (TMPY-03465)
Antigen Species:	Listeria monocytogenes
Synonyms:	flaA

Research Background

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.