Active Recombinant Listeriolysin O, PEST Free

Cat. No. hly-243 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Listeriolysin O lacking both the signal secretion sequence and the PEST- like sequence is produced in E.Coli. LLO-PEST minus is composed of 471(60-592) amino acids, with the addition of a methionine in its NH2-terminus.
Source	E.coli
ProteinLength	60-592 a.a.
Description	The secreted pore-forming protein listeriolysin O (LLO) is an essential virulence determinant of the facultative intracellular bacterium Listeria monocytogenes that allows the pathogen to escape from the phagocytic vacuole and reach the host cytosol. LLO is a single polypeptide protein encoded by the hlyA gene and composed of 529 residues. At its NH2-terminus it possesses a 25 residues long typical signal sequence excited during the secretion process. Moreover, in its NH2-terminus there is also a 19 amino acids PEST- like sequence that may target this toxin for degradation. This motif seems to be essential for bacterial virulence too, since its deletion causes a defect in bacterium phagosomal escaping.
Physical Appearance	Sterile Filtered clear solution.
Formulation	The protein (0.2mg/ml) contains 50mM NaH2PO4, 1mM EDTA, 2.7mM KCl, 1mM DTT, 5% glycerol and 0.5M NaCl.
Purity	Greater than 90.0% as determined by both: (a) Analysis by RP-HPLC. (b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

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Activity	1.25x10^{6}HU/mg. 2 mM DTT could be use to reactivate the toxin.
Endotoxin	Less than 0.1ng/μg (IEU/μg) of LLO.
Applications	a. Cytosolic delivery of molecules, peptides, oligonucleodides and plasmid DNA (4). b. Production of specific monoclonal antibodies (5). c. Detection of anti-listeriolysin O antibodies (6).
Stability	rLLO although stable at 14C for 1 week, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	hly listeriolysin O [Listeria monocytogenes str. 4b F2365]
Synonyms	Hly; listeriolysin O; identified by similarity to SP:P13128; match to protein family HMM PF01289
Gene ID	2797098
Protein Refseq	YP_012823
UniProt ID	Q724L1
Function	cholesterol binding

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