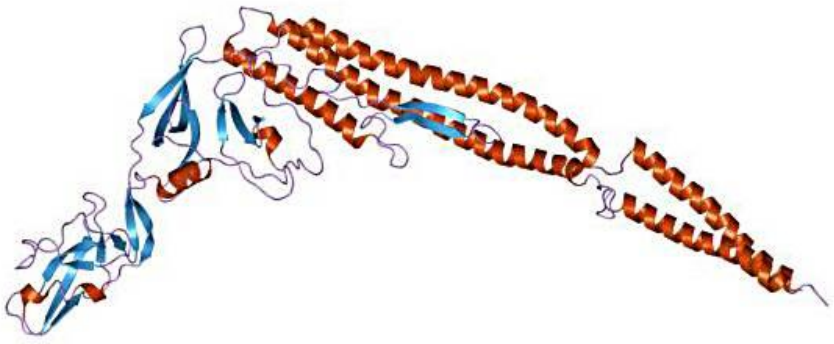
Product Information Sheet

P6622
flg22 peptide



Synonyms:	flagellin peptide (30-51 aa, *Pseudomonas sp.*)
CAS:	N/A
Formula:	$C_{93}H_{162}N_{32}O_{34}$
Theoretical MW:	2272.5 g/mol

Properties

Form:	Lyophilized powder
Appearance:	White to off-white
Solubility:	Soluble in sterile water (1 mg/mL) or DMF
Application:	Plant Defense and Immunity
Storage Temp:	-20°C or below
Amino Acid Sequence:	QRLSTGSRINSAKDDAAGLQIA
Typical Working Concentration:	100 pM to 100 nM (Varies with application)

Application Notes

Peptide sequence derived from the flagellin N-terminus of *Pseudomonas sp* that is known to elicit specific innate immune responses in plants as well as animals. It is considered a PAMP (pathogen associated molecular pattern) by its conserved 22-amino acid sequence. In *A. thaliana* it leads to activation of MAP (mitogen activated protein) kinases as well as activation of PR (pathogenesis-related) genes.

Dissolve in sterile, deionized water. Store at -20°C or below. Aliquot into multiple tubes to avoid multiple freeze-thaw events. Note peptides and proteins are all susceptible to binding on the surfaces of plastic and glass tubes and bottles and significant losses can be realized during dilutions near or below 10 μg/mL. This is a well-known phenomenon for all peptides and proteins and has been seen specifically in the case of flg22 (Felix *et al.* 1999). To overcome this we would recommend dilutions below 1.0 mg/mL be performed with an aqueous solution of 0.05M NaCl (S624) and 0.1 mg/mL hydrolyzed casein (C184). Bovine serum albumin (BSA) has often been used in the same capacity as hydrolyzed casein, however we recommend hydrolyzed casein due to its widespread use in plant tissue culture.

References

G. Felix *et al.* (1999) “Plants have a sensitive perception system for the most conserved domain of bacterial flagellin.” *Plant J.* Vol. 18(3) pg 265-276.

S.T. Chisholm *et al.* (2006) “Host-Microbe Interactions: Shaping the Evolution of the Plant Immunne Response” *Cell* Vol 124(4) pg 803-814.

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