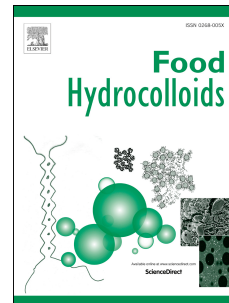


# Accepted Manuscript

High-throughput screening approach to evaluate the adhesive properties of bacteria to milk biomolecules

F. Gomand, F. Borges, D. Salim, J. Burgain, J. Guerin, C. Gaiani



PII: S0268-005X(18)30273-X

DOI: [10.1016/j.foodhyd.2018.06.038](https://doi.org/10.1016/j.foodhyd.2018.06.038)

Reference: FOOHYD 4515

To appear in: *Food Hydrocolloids*

Received Date: 13 February 2018

Revised Date: 19 June 2018

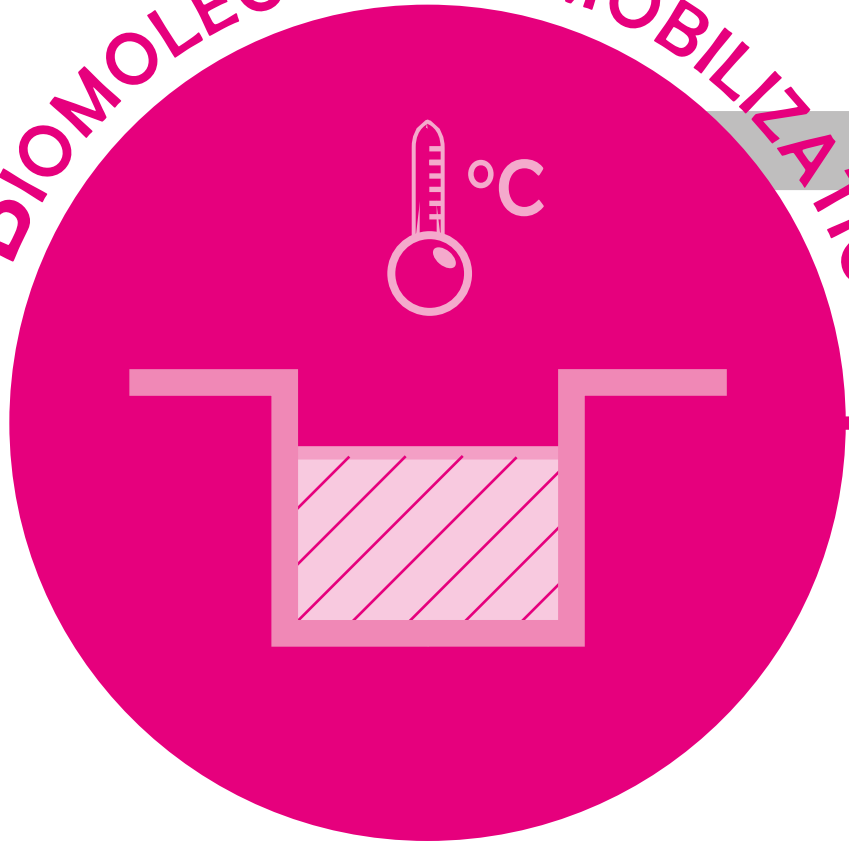
Accepted Date: 21 June 2018

Please cite this article as: Gomand, F., Borges, F., Salim, D., Burgain, J., Guerin, J., Gaiani, C., High-throughput screening approach to evaluate the adhesive properties of bacteria to milk biomolecules, *Food Hydrocolloids* (2018), doi: [10.1016/j.foodhyd.2018.06.038](https://doi.org/10.1016/j.foodhyd.2018.06.038).

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# BIOMOLECULE IMMOBILIZATION

ACCEPTED MANUSCRIPT



1

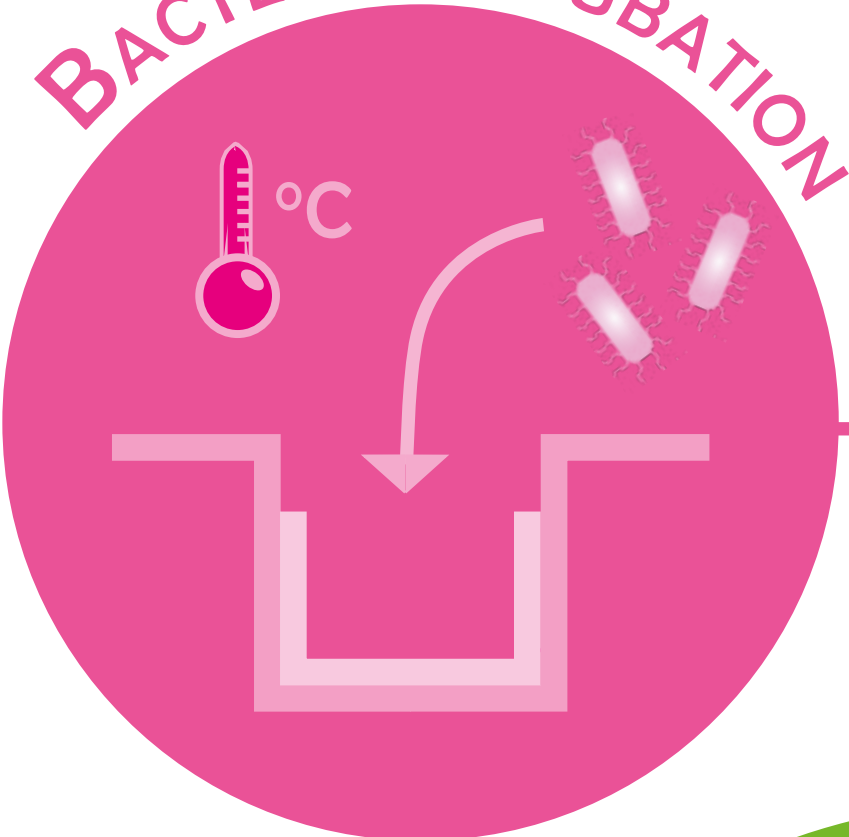
## High-Binding Microplates Coating parameters:

- 1 % (w/w) molecule solution
- 200  $\mu$ L by well
- Stored at 9 °C overnight

Successive wash-outs

*Remove unbound molecules  
+ block empty sites*

# BACTERIA INCUBATION



2

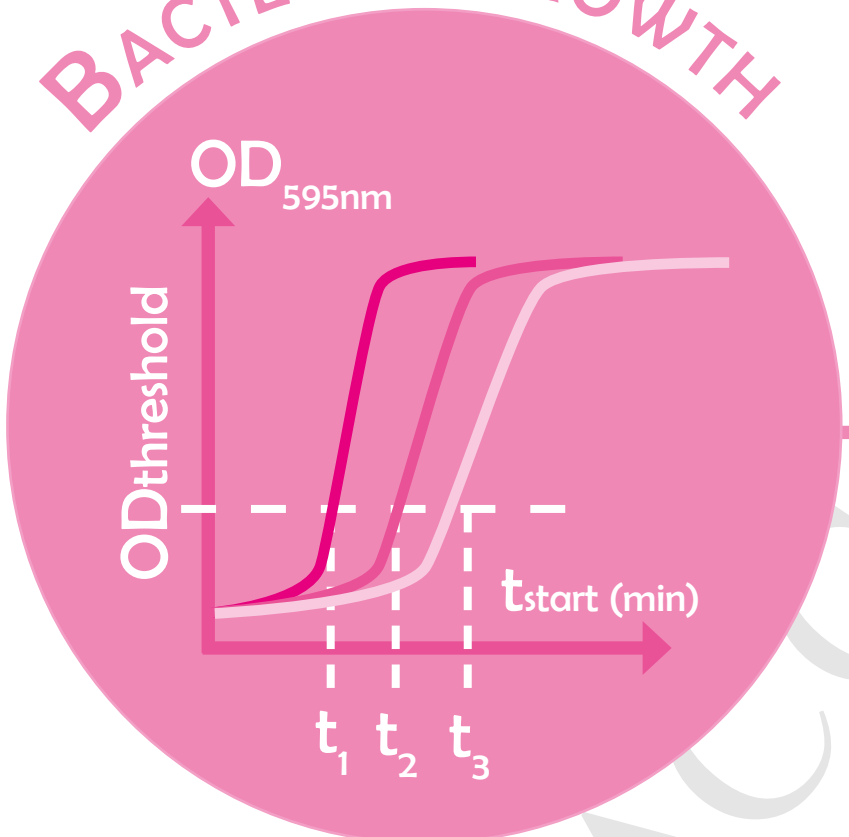
## Bacteria-biomolecule affinity Adhesion parameters :

- 120  $\mu$ L of bacteria by well
- Incubation for 1 h
- At 37 °C for *Lactobacilli*

Successive wash-outs  
+ culture medium

*Remove unbound bacteria  
+ allow bacteria growth*

# BACTERIA GROWTH



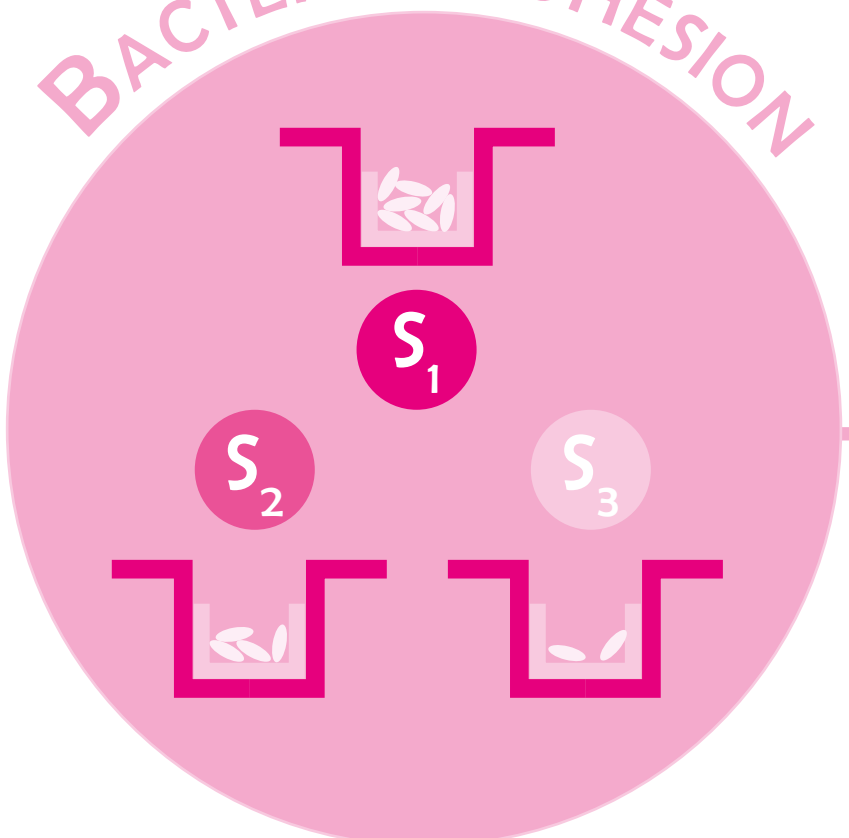
3

- Kinetics monitoring (24 h) through spectrophotometry
- Quantity of bound bacteria = f(time at which growth starts)

CONCLUSION

*Relationship between  
growth and adhesion*

# BACTERIA ADHESION



4

## Adhesive bacteria = high affinity for the biomolecule

- S<sub>1</sub> : highly-adhesive strain
- S<sub>2</sub> : adhesive strain
- S<sub>3</sub> : low-adhesive strain

Download English Version:

<https://daneshyari.com/en/article/6985565>

Download Persian Version:

<https://daneshyari.com/article/6985565>

[Daneshyari.com](https://daneshyari.com)