

Article title:

Lactobacillus paracasei and *Lactobacillus plantarum* Strains Downregulate Proinflammatory Genes in an *Ex Vivo* System of Cultured Human Colonic Mucosa

Journal:

Genes & Nutrition

Authors:

Christine Bäuerl^a, Marta Llopis^b, María Antolín^b, Vicente Monedero^a, Manuel Mata^c, Manuel Zúñiga^a, Francisco Guarner^b and Gaspar Pérez Martínez^a

Affiliation:

^a Department of Food Biotechnology, Instituto de Agroquímica y Tecnología de Alimentos, CSIC, Valencia, Spain

^b Digestive System Research Unit, University Hospital Vall d’Hebron, Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (Ciberehd), Barcelona, Spain

^c Research Foundation, Hospital General Universitario, University of Valencia, Valencia, Spain

E-Mail of the Corresponding Author:

Gaspar Perez Martinez, e-mail: gaspar.perez@iata.csic.es

Online resource 3: qPCR validation of microarray results – data of individual patients

Table a: Fold-changes corresponding to explants of **patient 1 (RSL-6)** are represented relative to the Control sample and normalized to B2M gene expression.

| Gene | Fold-change Arrays | | | | Fold-change qPCR | | | |
|---------|--------------------|------|---------|-------|------------------|------|---------|-------|
| | Inflamed | iLP | iLP(A-) | iBL23 | Inflamed | iLP | iLP(A-) | iBL23 |
| IL2 | 10.1 | 2.2 | 2.3 | 3.1 | 15.2 | 4.2 | 3.9 | 4.2 |
| IL2RA | 2.8 | 2.5 | 2.1 | 2.5 | 3.7 | 2.9 | 2.3 | 2.6 |
| IFNG | 13.0 | 8.3 | 5.2 | 4.6 | 8.9 | 5.1 | 5.0 | 3.2 |
| IL17A | 33.7 | 22.3 | 12.4 | 12.6 | 29.0 | 10.9 | 10.5 | 7.3 |
| GBP1 | 4.0 | 3.2 | 2.0 | 3.0 | 1.6 | 1.5 | 2.7 | 1.5 |
| CXCL11 | 26.6 | 20 | 25.3 | 11.5 | 40.7 | 37.4 | 98.7 | 14.4 |
| CXCL9 | 19.9 | 7.3 | 8.6 | 4.0 | 17.1 | 9.9 | 24.3 | 8.7 |
| GZMB | 4.2 | 2.0 | 2.8 | -1.2 | 12.9 | 5.9 | 10.9 | 3.1 |
| TNFRSF9 | 4.3 | 3.1 | 1.8 | 2.2 | 3.4 | 2.9 | 2.7 | 2.5 |
| UBD | 3.4 | 3.3 | 3.3 | 2.4 | 7.5 | 6.5 | 9.7 | 3.0 |

Table b: Fold-changes corresponding to explants of **patient 2 (RSL-21)** are represented relative to the Control sample and normalized to B2M gene expression.

| Gene | Fold-change Arrays | | | | Fold-change qPCR | | | |
|---------|--------------------|------|---------|-------|------------------|------|---------|-------|
| | Inflamed | iLP | iLP(A-) | iBL23 | Inflamed | iLP | iLP(A-) | iBL23 |
| IL2 | 6.3 | 1.7 | 2.0 | 2.0 | 10.5 | 3.9 | 2.9 | 3.5 |
| IL2RA | 1.8 | 1.5 | 1.4 | 1.2 | 1.6 | 1.3 | 1.2 | -1.1 |
| IFNG | 6.2 | 3.8 | 3.7 | 3.1 | 6.7 | 3.9 | 3.5 | 3.2 |
| IL17A | 19.0 | 9.2 | 8.2 | 7.8 | 15.1 | 7.2 | 4.8 | 4.8 |
| GBP1 | 2.7 | 2.2 | 1.5 | 1.3 | 1.6 | -1.2 | 1.5 | 1.0 |
| CXCL11 | 5.2 | -1.5 | 1.4 | -1.9 | 11.6 | -1.3 | 1.7 | -1.7 |
| CXCL9 | 3.4 | -1.7 | 1.2 | -1.5 | 3.4 | -1.1 | 2.0 | -1.1 |
| GZMB | 9.3 | 3.6 | 4.6 | 3.5 | 10.3 | 3.7 | 5.0 | 6.3 |
| TNFRSF9 | 3.3 | 2.3 | 2.7 | 1.4 | 3.3 | 1.1 | 2.1 | 2.2 |
| UBD | 2.7 | 1.3 | 1.6 | 1.2 | 5.5 | 1.3 | 1.3 | 1.0 |

Table c: Fold-changes corresponding to explants of **patient 3 (RSL-10)** are represented relative to the Control sample and normalized to B2M gene expression.

| Gene | Fold-change Arrays | | | | Fold-change qPCR | | | |
|---------|--------------------|------|---------|-------|------------------|------|---------|-------|
| | Inflamed | iLP | iLP(A-) | iBL23 | Inflamed | iLP | iLP(A-) | iBL23 |
| IL2 | 12.5 | 3.7 | 3.3 | 3.0 | 67.3 | 27.1 | 26.1 | 19.5 |
| IL2RA | 2.9 | 1.8 | 1.3 | 1.8 | 1.6 | 1.1 | 1.2 | 1.7 |
| IFNG | 27.8 | 8.3 | 10.4 | 12.4 | 15.9 | 6.2 | 7.5 | 9.9 |
| IL17A | 6.3 | 2.4 | 1.6 | 2.7 | 3.9 | 3.1 | 3.0 | 3.1 |
| GBP1 | 4.9 | 1.3 | 1.8 | 3.3 | 2.2 | 1.4 | 2.0 | 1.6 |
| CXCL11 | 131.5 | 33.3 | 79.6 | 46 | 89.6 | 46.5 | 105.9 | 36.8 |
| CXCL9 | 41.6 | 13.1 | 13.7 | 10.6 | 21.4 | 9.1 | 7.9 | 11.0 |
| GZMB | 6.9 | 1.8 | 2.5 | 3.7 | 9.0 | 3.0 | 3.0 | 3.9 |
| TNFRSF9 | 4.4 | 2.0 | 3.3 | 2.3 | 4.1 | 2.5 | 3.7 | 2.9 |
| UBD | 2.6 | 2.0 | 2.4 | 2.0 | 5.2 | 3.9 | 4.7 | 4.4 |