



## The Oral EcologiX™ Information Sheet

Oral health and microbiome profile using quantitative real-time PCR (qRT-PCR) and enzyme-linked immunosorbent assay (ELISA) to provide an accurate, reliable and quantifiable measurement of microbiota abundance and host inflammatory markers.

### **The profile detects:**

- Inflammation
- Abundance of commensal bacteria
- Abundance of caries-associated bacteria
- Abundance of periodontitis-associated bacteria
- Presence of viral pathogens

The oral cavity is a complex ecosystem that includes the teeth, gums, tongue and tonsils, all colonised by bacteria. The oral microbiota consists of approximately 600 taxa at the species level, with different groups and subsets inhabiting different niches. The microbiota of the oral cavity exists as a complex biofilm that remains stable, despite environmental changes. However, dysbiosis, in form of infection, injury, dietary changes and risk-associated factors (e.g. smoking) may disrupt the biofilm community, favouring colonisation and invasion of pathogens.

Disruption of the biofilm community to a pathogenic profile, induces host immune responses, chronic inflammation and ultimately, the development of local and systemic disease. However, much of this damage is reversible if pathogenic communities are reduced, and homeostasis is restored.

BIOMARKERS

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- Parvimonas micra
- Lactobacillus spp.
- Micromonas micra
- Treponema denticola
- Actinobacillus actinomycetemcomitans
- Streptococcus mutans
- Eubacterium nodatum
- Aggregatibacter actinomycetemcomitans
- Porphyromonas gingivalis
- Campylobacter rectus
- Treponema forsythensis
- Peptostreptococcus anaerobius
- Prevotella intermedia
- Tannerella forsythia
- Candida albicans
- Fusobacterium nucleatum
- Prevotella nigrescens
- HSV1
- HPV16\_E6
- HPV16\_E7

**Sample type:** Saliva

**Turnaround time:** 10 days

**Lab:** Phylo Bioscience

**Cost:** £195