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## Rabbit Anti *Porphyromonas gingivalis* ANT0085

### 200µl

#### Description

*Porphyromonas gingivalis* is an anaerobic, Gram-negative bacterium that can be found within the mouth of an individual. This bacterium is the principal source of periodontal disease. It has been found that in addition to causing human infections, this bacterium also causes much of the antibiotic resistance problems found today. The way which it operates is very unique, since it is a Gram-negative bacteria, it can attach to the subgingival coating of the tooth, and it will substitute the Gram-positive bacteria that is originally there with its own thus causing an inflammation which will disengage the gums from the teeth. The bacteria, *P. gingivalis*, in addition to others causes gingivitis as well as periodontitis. Gingivitis is "A disorder involving inflammation of the gums; may affect surrounding and supporting structures of the teeth." Periodontitis is "inflammatory reaction of the tissues surrounding a tooth (periodontium), usually resulting from the extension of gingival inflammation into the periodontium." When a gathering of Gram-negative, anaerobic bacteria is observed on the gums, it develops a biofilm called plaque on the tooth [1-2]. Thus *P. gingivalis* expresses proteolytic enzymes which regulate the protein function in the body. These enzymes are usually utilized for Cysteine and Arginine metabolism. However, here they affect the link between the tooth and the bone, thus ultimately separating the two from one another, which causes the taking apart of the tooth from jaw [3]. In the last few years it is intensively investigate the role of *P. gingivalis* in atherosclerosis development and in promoting or inflicting different cancers [4].

#### Product type

Primary Polyclonal antibody

#### Immunogen

*P. gingivalis* ATCC 33277 10<sup>10</sup> cells inactivated in glutaraldehyde 2.5%v/v

#### Source

Rabbit

#### Reacts with

*Porphyromonas gingivalis*

#### Specificity

*Porphyromonas gingivalis*; The antibody anti *P. gingivalis* was found to be reactive toward *S. oralis* ATCC9811 and *F. nucleatum* ATCC 25586 until 1:200v/v dilution, while cross-reactivity toward *S. mutans* ATCC 25175 only at 1:50v/v dilution [5].

#### Tested applications

ELISA; FACS; Confocal laser scanning microscopy;

#### Recommended dilutions

Recommended starting dilutions can vary lot-to-lot. Consult the product information label in the package for lot specific values.

**Note:** When using any primary antibody or fluorescence-labelled secondary antibody for the first time, titrate out the antibody to determine which dilution allows the strongest specific signal with the lowest background for your sample [5].

#### Purity

Polyclonal immunoglobulins purified by protein A affinity chromatography.

#### Form

Liquid. Supplied in 100mM sodium citrate, 50mM Tris and 0.05% v/v glycerol. Neutral pH.

#### Storage

Shipped at +4°C. When stored at +4°C, the antibody is stable for 18 months. For extended storage, the solution may be frozen at -20°C in working aliquots.

**Note:** Avoid repeated freezing and thawing cycles.

#### Reference:

- [1] Line Kah Yan How, Keang Peng Song and Kok Gan Chan. *Porphyromonas gingivalis*: An Overview of Periodontopathic Pathogen below the Gum REVIEW Microbiol., 09 February 2016 | <http://dx.doi.org/10.3389/fmicb.2016.00053>
- [2] Bolstad, A.I., Jensen, H.B., Bakken, V. "Taxonomy, Biology, and Periodontal Aspects of *Fusobacterium nucleatum*." *Clinical of Microbiology Reviews*. Jan. 1996. pp. 55-71
- [3] Jan Potempaa and Robert N. Pikeb Corruption of Innate Immunity by Bacterial Proteases. *J Innate Immun*. 2009 January 1; 1(2): 70–87. doi:10.1159/000181144
- [4] P.Gholizadeh, H. Eslami, M. Yousefi, M. Asgharzadeh, M. Aghazadeh and H.S. Kafil. "Role of oral microbiome on oral cancers, a review" *Biomedicine & Pharmacotherapy*, Volume 84, Issue null, Pages 552-558
- [5] Manti A, Ciandrini E, Campana R, Dominici S, Ciacci C, Federici S, Sisti D, Rocchi MB, Papa S, Baffone W. A dual-species microbial model for studying the dynamics between oral streptococci and periodontal pathogens during biofilm development on titanium surfaces by flow cytometry. *Res Microbiol*. 2016 Jun;167(5):393-402. doi: 10.1016/j.resmic.2016.03.004. Epub 2016 Mar 28