

Lactobacillus rhamnosus SpaC mouse monoclonal antibody (clone 2013-4.1)

Catalog PODI-0063

Product specification sheet PS-PAb0063

Product description

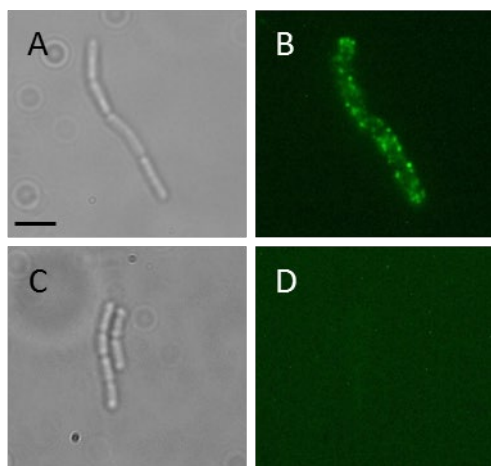
The Gram positive probiotic bacterium *Lactobacillus rhamnosus* strain GG expresses pili on its cell surface that promote adhesion to surfaces and colonization of the human gut epithelium. The pili are composed of three pilin subunits SpaABC. SpaA is the major structural pilin while the SpaC is required for efficient adhesion properties. Anti-SpaC clone 2013-4.1 recognizes both native and recombinant SpaC, either in folded or denatured form.

Product type:	Primary antibodies
Clone number:	2013-4.1
Immunogen:	recombinant <i>Lactobacillus rhamnosus</i> GG SpaC mature domain produced in <i>E. coli</i>
Reacts with:	<i>L. rhamnosus</i> GG
Tested applications:	ELISA, whole cell ELISA, WB, IF Recommended starting dilutions: 1:100 (IF), 1:1000 (WB). The optimal dilution is assay dependent and should be determined by the end user.
Raised in:	Mouse
Purity:	Protein G affinity purified, >95%
Isotype:	IgG1
Light chain type:	Kappa
Storage buffer:	PBS
Form:	Liquid
Concentration:	0.5 mg/ml

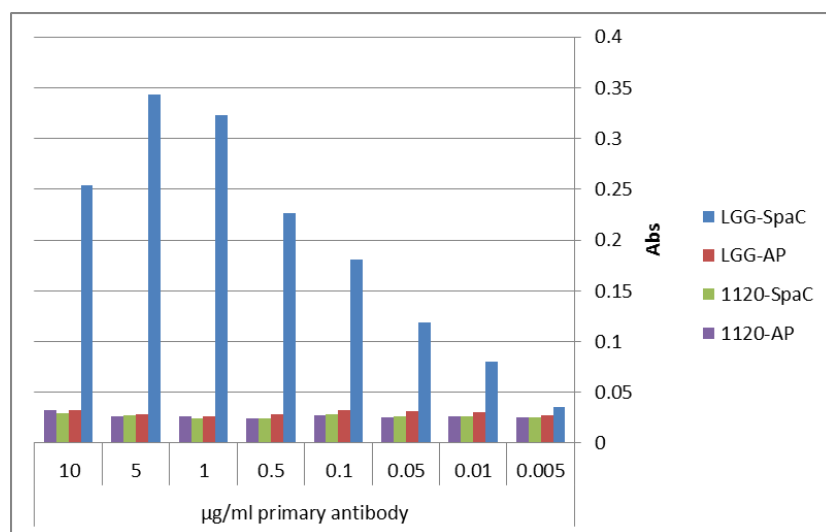
Storage and stability

Store at 4 °C, short term (1-2 weeks). For long-term storage, aliquot and keep at or below -20° C. Avoid repeated freeze-thaw cycles

Data



Immune fluorescence staining of *Lactobacillus rhamnosus* GG with clone 2013-4.1 (A and B) or a control antibody (C and D). Secondary antibody was goat anti-mouse IgG, FITC conjugate. Left panels show transmission light images while the right panels are fluorescence pictures. Scale bar = 5 µm



Whole cell ELISA of SpaCBA pilus producing *L. rhamnosus* strain GG and pilus-negative strain *L. rhamnosus* 1120

Live cells were coated on plates and detected with a dilution series of anti-SpaC clone 2013-4.1 or a control monoclonal antibody (human alkaline phosphatase). The antibody was detected with goat anti-mouse-HRP and ABTS and the absorbance at 405nm is shown in the graph.

References

Kankainen M, Paulin L, Tynkkynen S, *et al.*, Comparative genomic analysis of *Lactobacillus rhamnosus* GG reveals pili containing a human- mucus binding protein. *Proc Natl Acad Sci U S A*. 2009 Oct 6;106(40):17193-8

von Ossowski I, Reunanen J, Satokari R, Vesterlund S, Kankainen M, Huhtinen H, Tynkkynen S, Salminen S, de Vos WM, Palva A. Mucosal adhesion properties of the probiotic *Lactobacillus rhamnosus* GG SpaCBA and SpaFED pilin subunits. *Appl Environ Microbiol*. 2010 Apr;76(7):2049-57.

Ardita CS, Mercante JW, Kwon YM, Luo L, Crawford ME, Powell DN, Jones RM, Neish AS. Epithelial adhesion mediated by pilin SpaC is required for *Lactobacillus rhamnosus* GG-induced cellular responses. *Appl Environ Microbiol*. 2014 Aug;80(16):5068-77

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