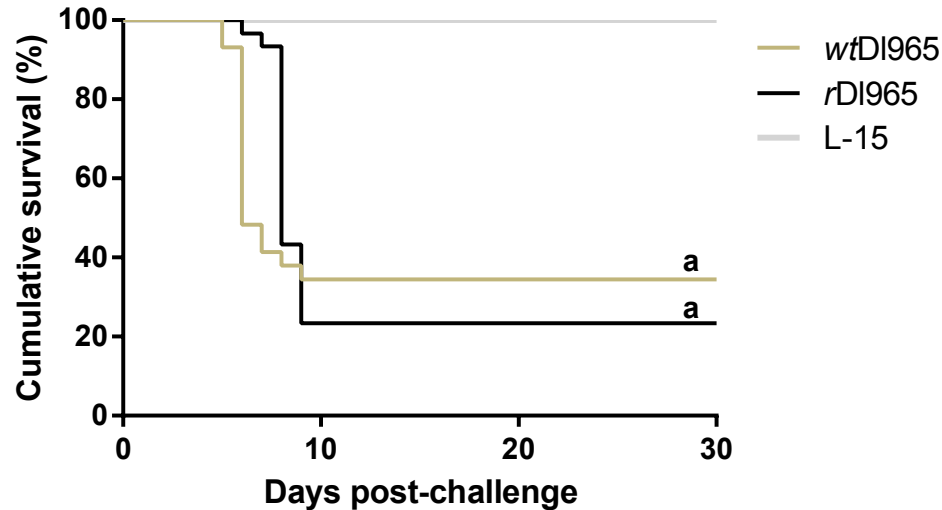


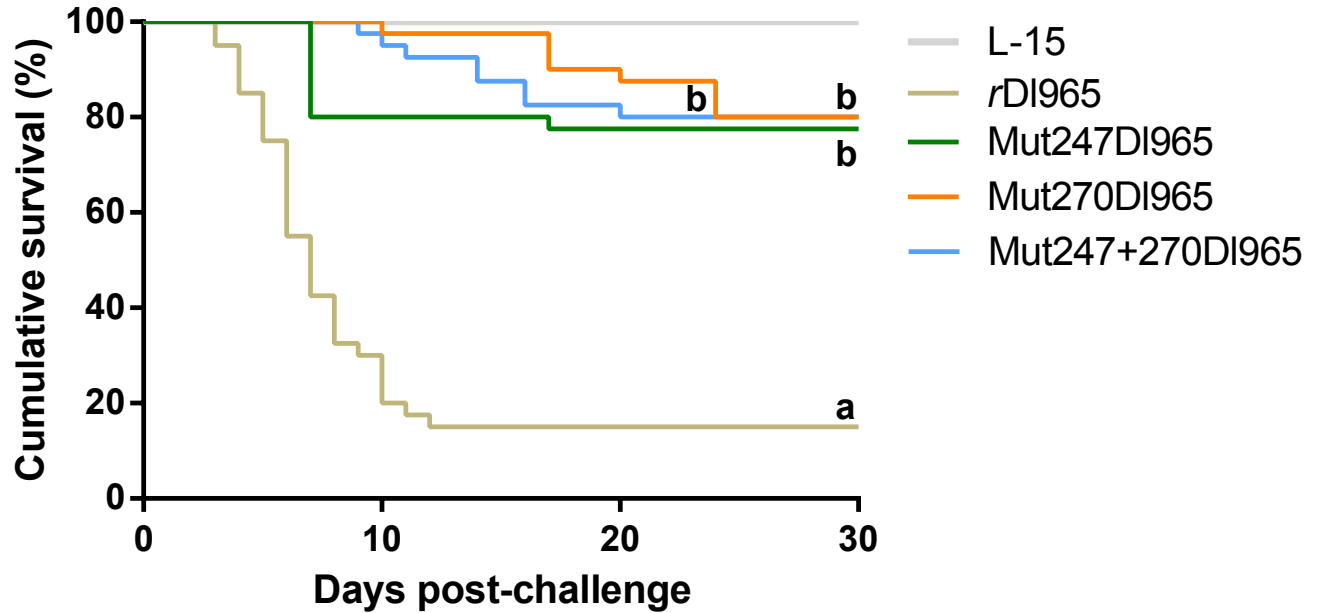
# Capsid amino acids at positions 247 and 270 are involved in the virulence of betanodaviruses to European sea bass

Patricia Moreno, Sandra Souto, Rocio Leiva-Rebollo, Juan J. Borrego, Isabel Bandín & M. Carmen Alonso\*



	Chi square	Df	p value
Log Rank Mantel Cox	0.857	1	0.369

Figure S1. Comparative analysis between *wtDI965* and *rDI965* virulence: Kaplan-Meier survival curves. Log Rank Mantel Cox Test results are represented below the Kaplan-Meier survival curve. Same letters indicate no significant differences ( $p < 0.05$ ).



Log Rank Mantel Cox	Chi square	Df	p value
<i>rDL965 vs Mut247DI965</i>	36.47	1	< 0.0001
<i>rDL965 vs Mut270DI965</i>	52.86	1	< 0.0001
<i>rDL965 vs Mut247+270DI965</i>	48.55	1	< 0.0001
<i>Mut247 vs Mut270 vs Mut247+270</i>	0.2822	2	0.8684

Figure S2. Comparative analysis between *rDI965* and mutated virus virulence: Kaplan-Meier survival curves. The log Rank Mantel Cox Test results are in a box below the Kaplan-Meier curves. Different letters indicate significant differences between experimental groups ( $p < 0.05$ ).

Table S1.- Primers used in this study. (a) Primers designed to amplify the full-length RNA1 and RNA2 segments. Several motifs are represented in colour: *Bam*HI cut site in grey, *Sac*II cut site in green, the T7 promoter sequence in blue, two guanine residues in red and *Sfo*I blunt-ended cut site in orange. (b) Set of primers used to confirm the presence of viral RNA1 and RNA2 segment during the clonation procedure. (c) Primers used for absolute quantification of RGNV RNA2 viral segment. (d) Primers used for relative quantification of immunogene transcription.

Name	Sequence (5'-3')	Product length (bp)	References
<b>a</b>			
T7_5'RNA1_965	GGATCC <sup>grey</sup> CCGCGG <sup>green</sup> TAATACGACTCACTA	3,104	This study
3'RNA1_965	TAGG <sup>red</sup> TAACATCCCTTTCTTGCTCTGTT GGCGCC <sup>orange</sup> GAAGCGTAGGACAGCATAAA GC		
T7_5'RNA2_965	GGATCC <sup>grey</sup> CCGCGG <sup>green</sup> TAATACGACTCACTA	1,432	This study
3'RNA2_965	TAGG <sup>red</sup> TAATCCATCACCCTTTGCAATC GGCGCC <sup>orange</sup> GAGTTGAAAAGCGATCAGCG G		
<b>b</b>			
NNVs1_B3F	AACATCCGCACTGCATACGAACTG	615	Olveira et al., (2009) <sup>5</sup>
NNVs1_B3R	ATGCTGGAGAACACTGGCTTTGAA		
NNVs2_RG2F	CTTCCTGCCTGATCCAACCTGACAACG	568	Olveira et al., (2009) <sup>5</sup>
NNVs2_RG2R	CCAGATGCCCCAGCGAAACCA		
<b>c</b>			
RG_965_RNA2 F4	ACCGTCCGCTGTCTATTGACTA	126	Moreno et al., (2016) <sup>35</sup>
RG_965_RNA2 R1	CAGATGCCCCAGCGAAACC		
<b>d</b>			
rRNA18S Fw	CCAACGAGCTGCTGACC	208	Scapigliati et al., (2010) <sup>45</sup>
rRNA18S Rw	CCGTTACCCGTGGTCC		
DI_MxA Fw	ATTCTGAGTTCTTGCTGAAGG	113	Novel et al., (2013) <sup>34</sup>
DI_MxA Rw	CCTCTAGAACTCCACCAGG		
qISG15 F2	CGACTCAAAGCCTCTCTGCTACT	100	Moreno et al., (2016) <sup>35</sup>
qISG15 R2	CGTTTCTGACGAACACCTGGAT		
DI_TNF $\alpha$ Fw	CGACTGGCGAACAACC	220	Nascimento et al., (2007) <sup>46</sup>
DI_TNF $\alpha$ Rw	GCTGTCCCTCCTGAGC		