

Aberystwyth University

*Kinesins have a dual function in organizing microtubules during both tip growth and cytokinesis in *Physcomitrella patens**

Hiwatashi, Yuji; Sato, Yoshikatsu; Doonan, John H

Published in:

Plant Cell

DOI:

[10.1105/tpc.113.121723](https://doi.org/10.1105/tpc.113.121723)

Publication date:

2014

Citation for published version (APA):

Hiwatashi, Y., Sato, Y., & Doonan, J. H. (2014). Kinesins have a dual function in organizing microtubules during both tip growth and cytokinesis in *Physcomitrella patens*. *Plant Cell*, 26(3), 1256-1266.
<https://doi.org/10.1105/tpc.113.121723>

General rights

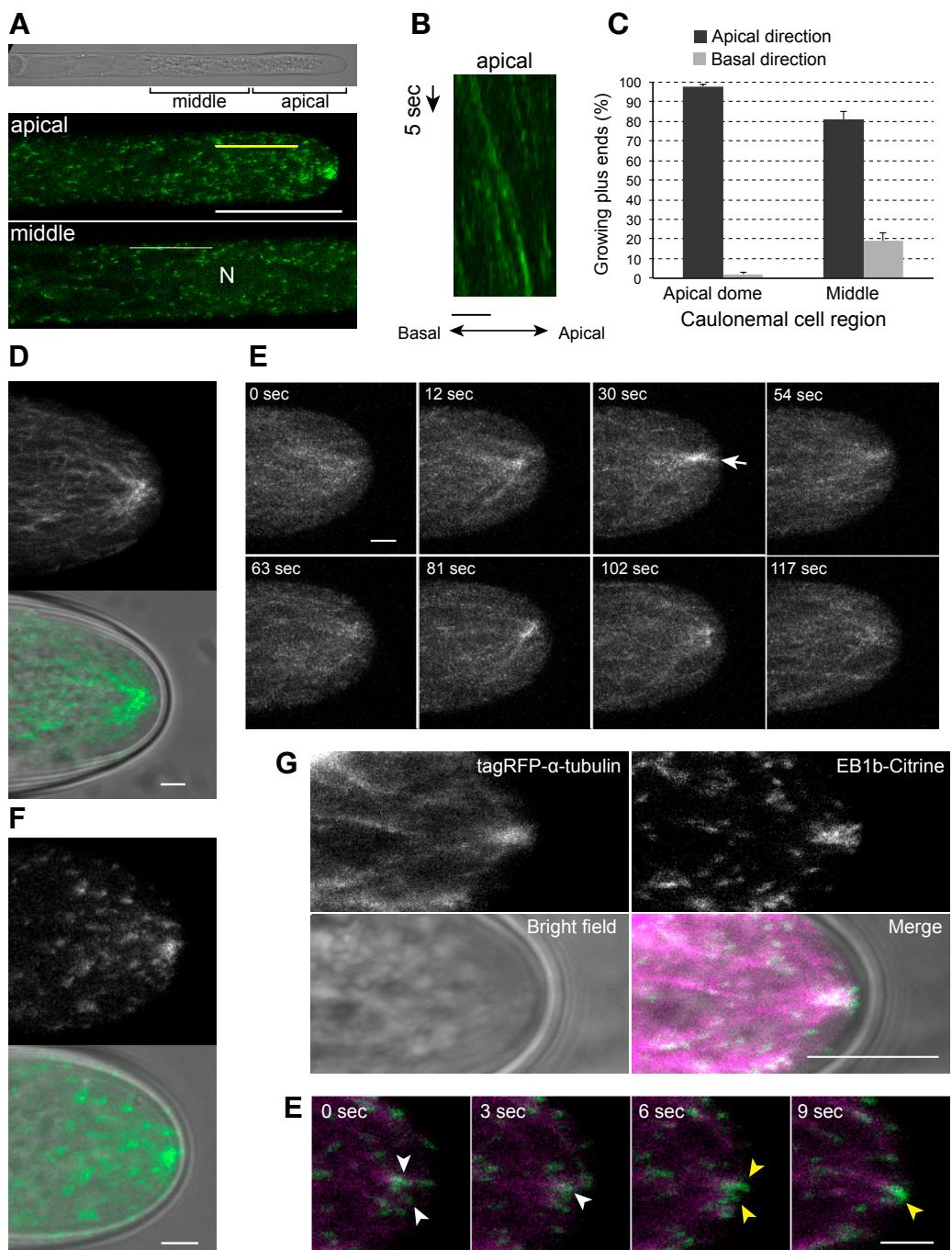
Copyright and moral rights for the publications made accessible in the Aberystwyth Research Portal (the Institutional Repository) are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Aberystwyth Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Aberystwyth Research Portal

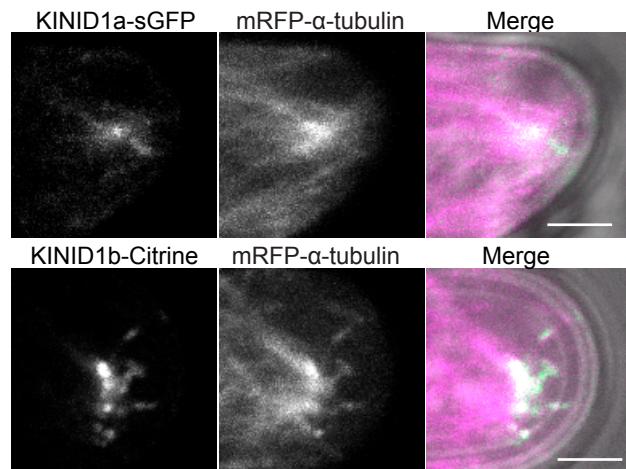
Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

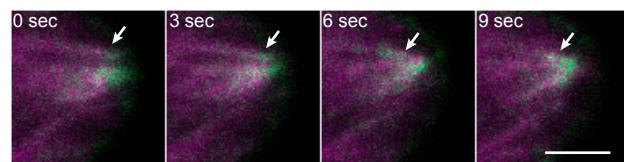
tel: +44 1970 62 2400
email: is@aber.ac.uk



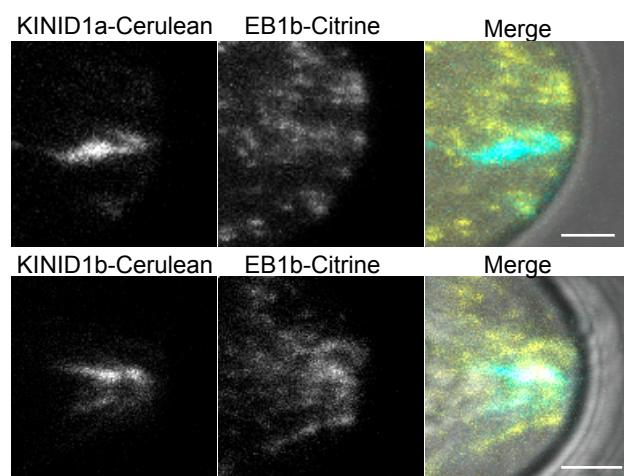
A



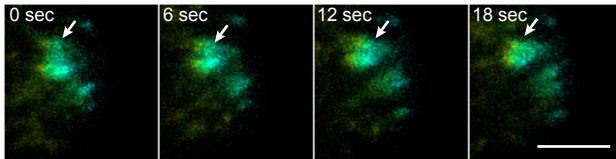
B



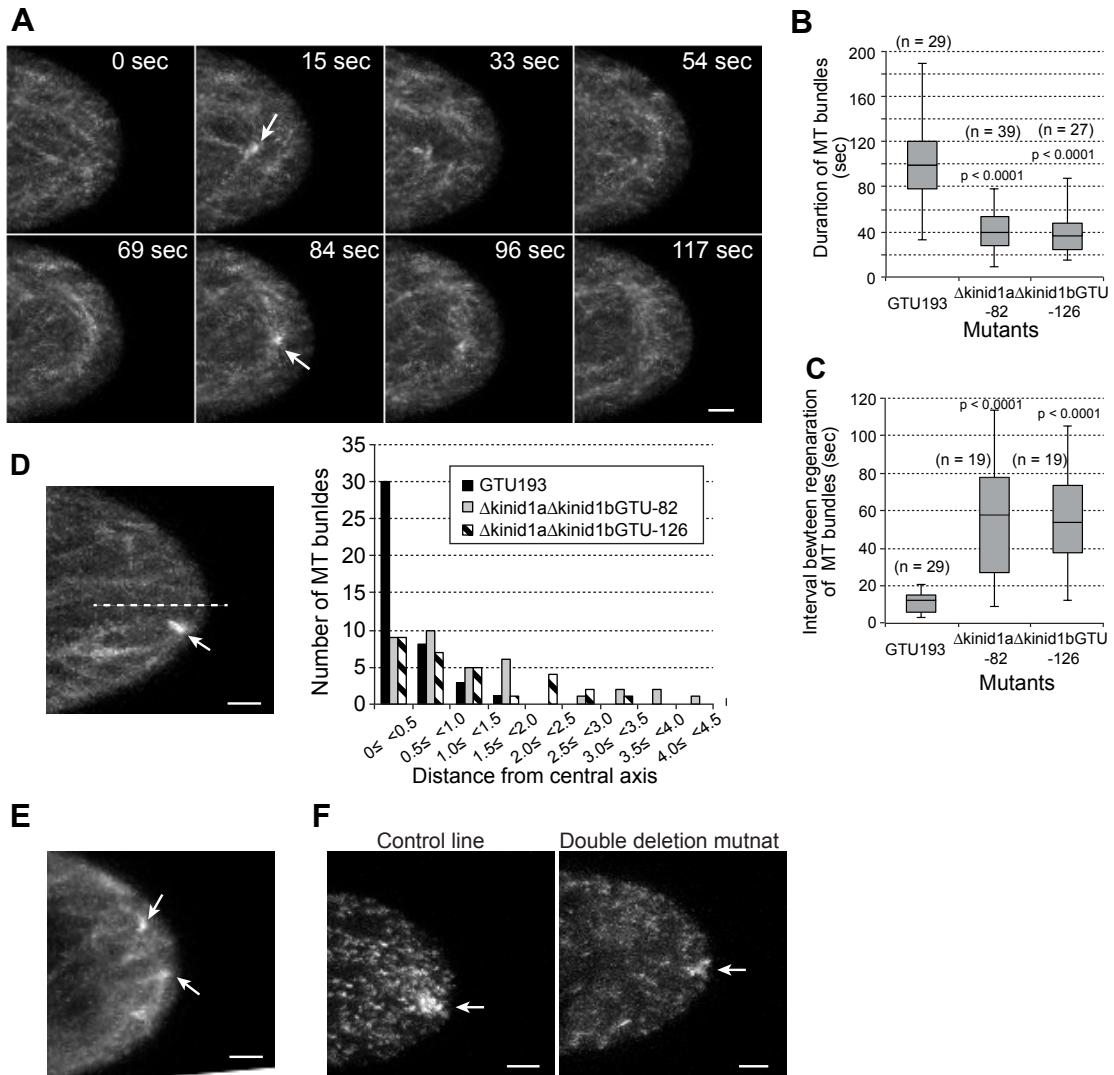
C

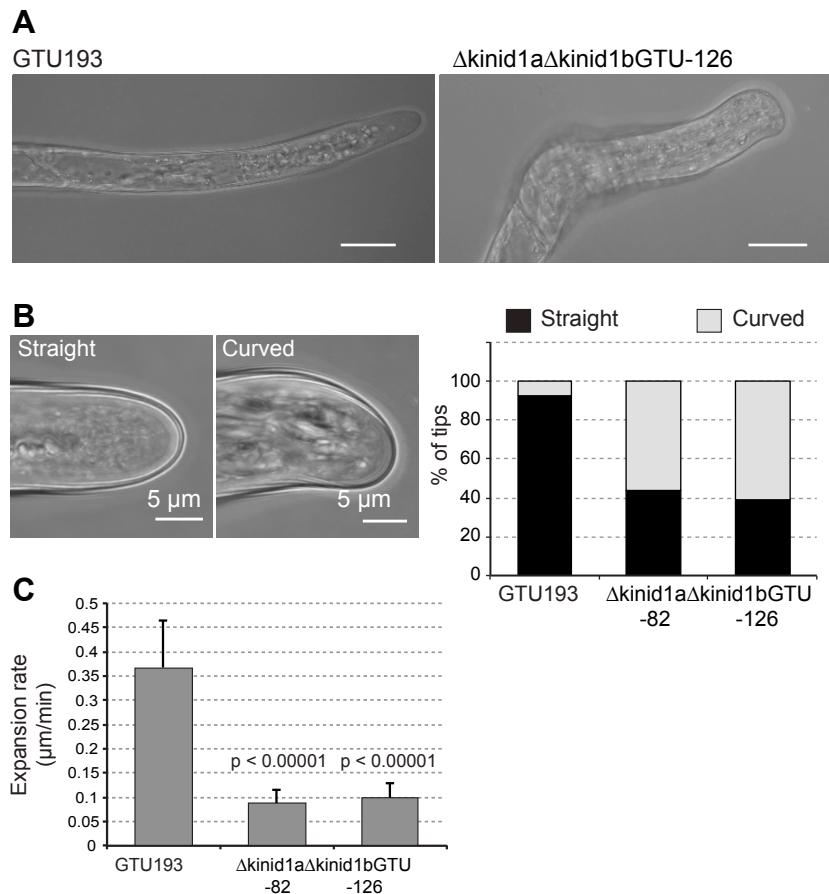


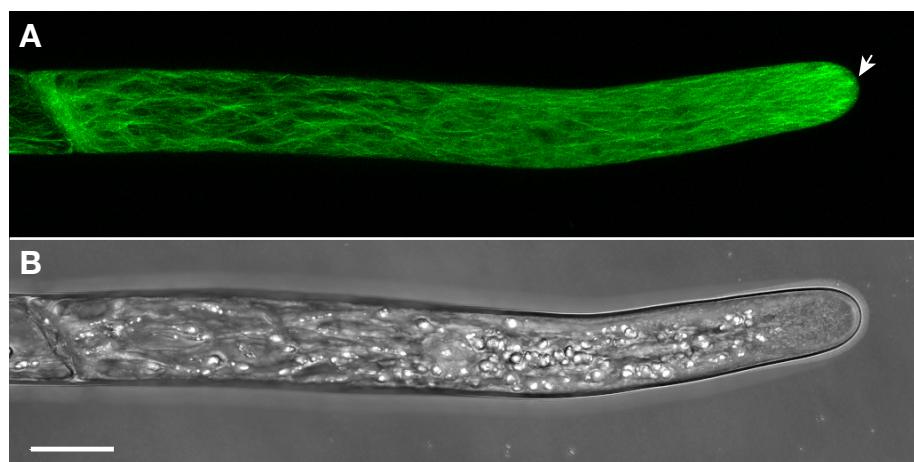
D

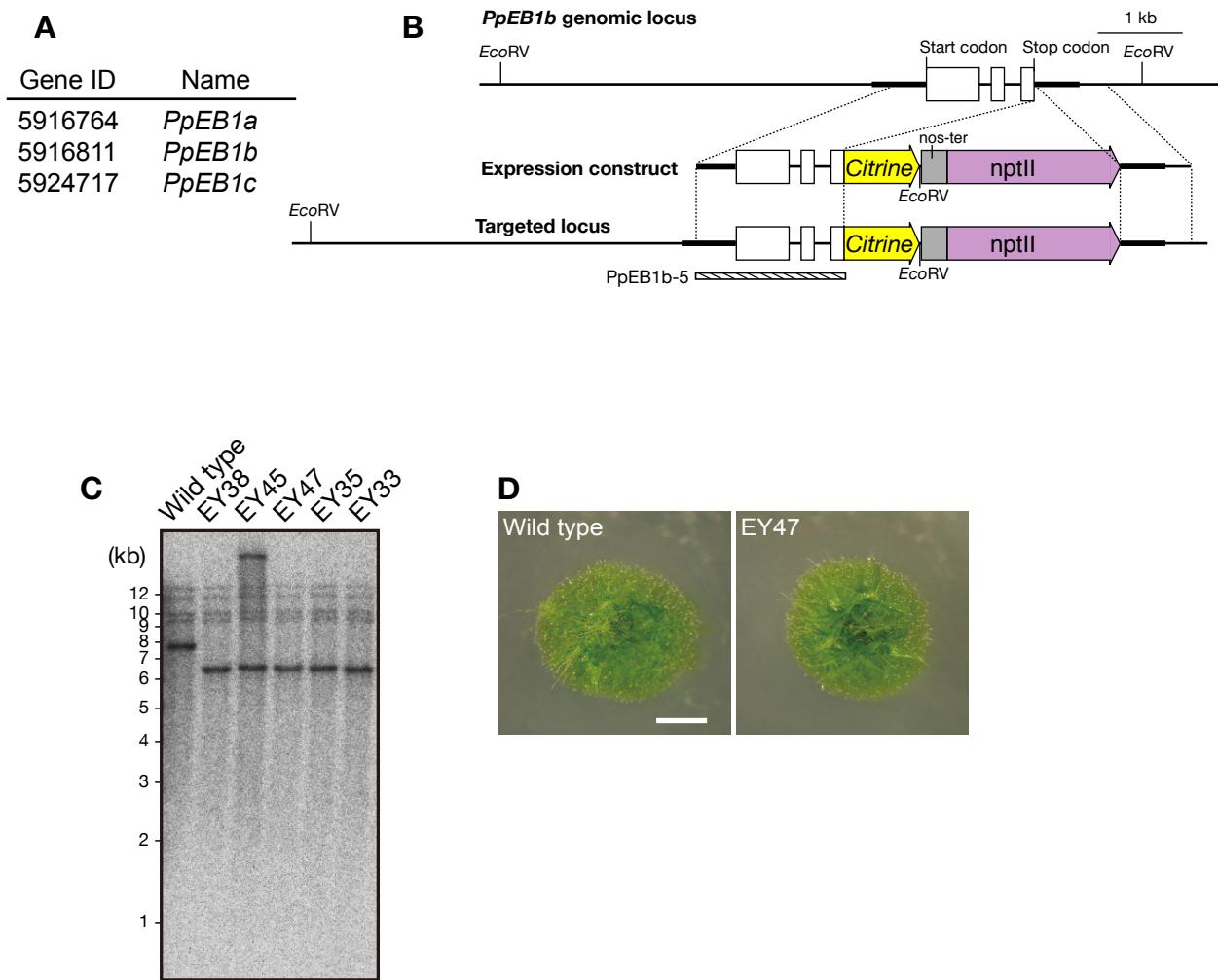


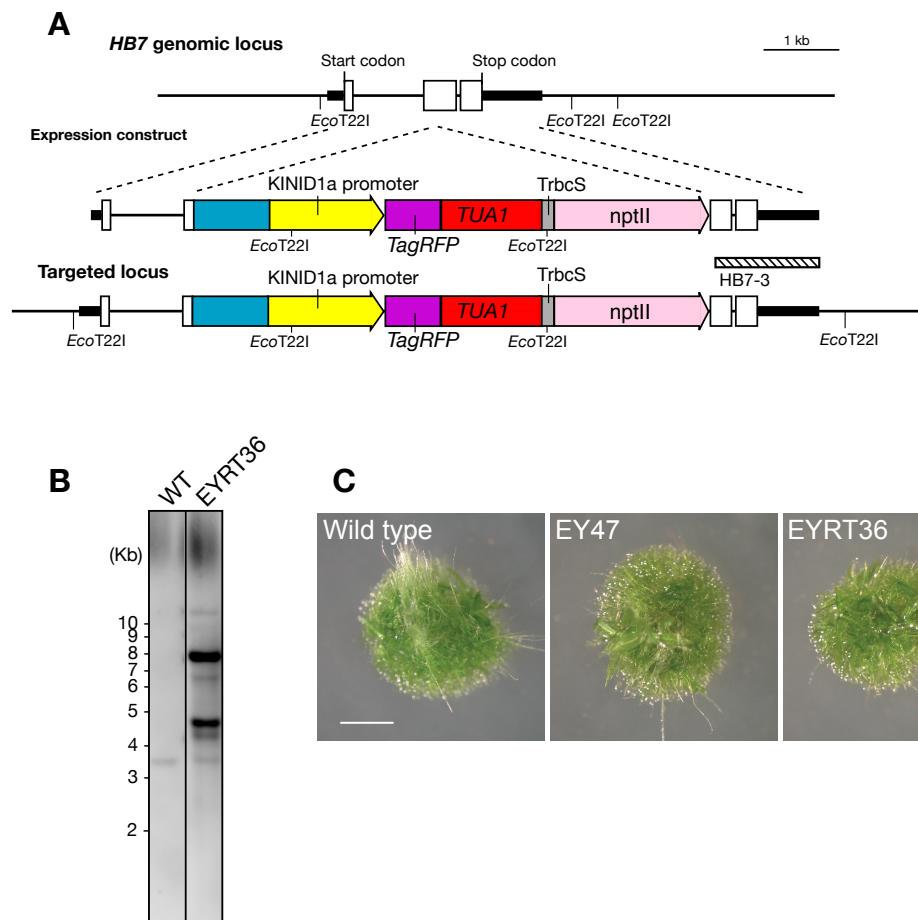
Hiwatashi et al. Figure 4

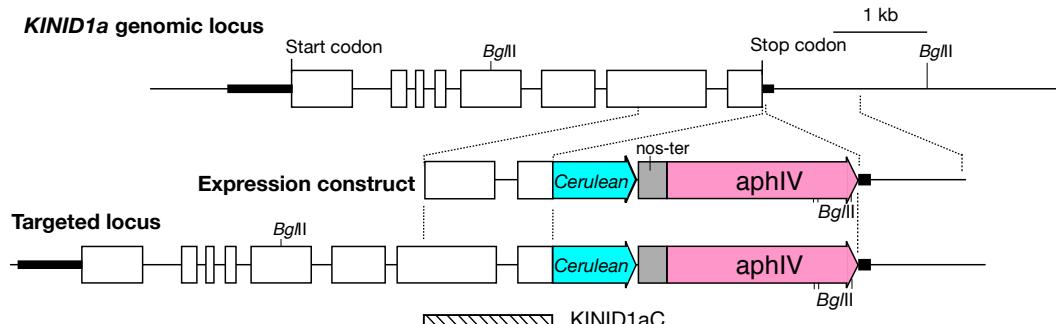










A**KINID1b genomic locus**

KINID1b genomic locus

The genomic locus shows a linear DNA sequence with several exons. A restriction site for *Bg*III is located between the fourth and fifth exons. A start codon is at the beginning of the first exon, and a stop codon is at the end of the fifth exon. A scale bar indicates 1 kb.

Expression construct

An expression construct is shown with a cassette inserted into the *Bg*III site. The cassette consists of a Cerulean gene (cyan arrow) followed by a nos-ter sequence (grey box), and then the aphIV gene (pink arrow).

Targeted locus

The targeted locus shows the genomic DNA with the insertion of the expression construct. The *Bg*III site is now part of the construct. The KINID1bC gene is indicated below the targeted locus.

B

The figure shows two agarose gel electrophoresis (gel) images. The left gel is for *KINID1a* and the right gel is for *KINID1b*. Both gels have molecular weight markers on the left side, ranging from 2 to 12 kb.

Left Gel (*KINID1a*):

- Wild type: Lanes show bands at approximately 4.5 kb and 5.5 kb.
- KINID1aCeruleanEY45*: Lanes show bands at approximately 4.5 kb, 5.5 kb, and a new band at approximately 6.5 kb.

Right Gel (*KINID1b*):

- Wild type: Lanes show bands at approximately 3.5 kb and 4.5 kb.
- KINID1bCeruleanEY34*: Lanes show bands at approximately 3.5 kb, 4.5 kb, and a new band at approximately 6.5 kb.
- KINID1bCeruleanEY54*: Lanes show bands at approximately 3.5 kb, 4.5 kb, and a new band at approximately 6.5 kb.

