

Supplementary Information

Title: A receptor-channel trio conducts Ca²⁺ signaling for pollen tube reception

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Supplementary information

Supplementary Fig. 1.

Uncropped images for Fig 1a (a), 1b (b), 1c (c) and 2c (d).

Supplementary Video 1.

Under control conditions, [Ca²⁺]_{cyt} in Col-0 synergids remains low and steady. Scale bar is 20μm.

Supplementary Video 2.

Application of 500 nM RALF4 elicits [Ca²⁺]_{cyt} changes in Col-0 synergids.

Supplementary Video 3.

Application of 500 nM RALF34 fails to elicit a [Ca²⁺]_{cyt} change in Col-0 synergids.

Supplementary Video 4.

Pollen tube induced [Ca²⁺]_{cyt} change in Col-0 synergids. Pollen tubes were labeled by RFP.

Supplementary Video 5.

[Ca²⁺]_{cyt} in *fer-4* synergids fails to respond to 500 nM RALF4.

Supplementary Video 6.

[Ca²⁺]_{cyt} in *lre-5* synergids fails to respond to 500 nM RALF4.

22 **Supplementary Video 7.**

23 $[Ca^{2+}]_{cyt}$ in *nta-3* synergids fails to respond to 500 nM RALF4.

24 **Supplementary Video 8.**

25 10 mM external $CaCl_2$ fails to trigger $[Ca^{2+}]_{cyt}$ elevation in mock HEK293T cells.

26 **Supplementary Video 9.**

27 10 mM external $CaCl_2$ fails to trigger $[Ca^{2+}]_{cyt}$ elevation in HEK293T cells expressing NTA alone.

28 **Supplementary Video 10.**

29 10 mM external $CaCl_2$ triggers a strong $[Ca^{2+}]_{cyt}$ elevation in HEK293T cells expressing FER-LRE-NTA.

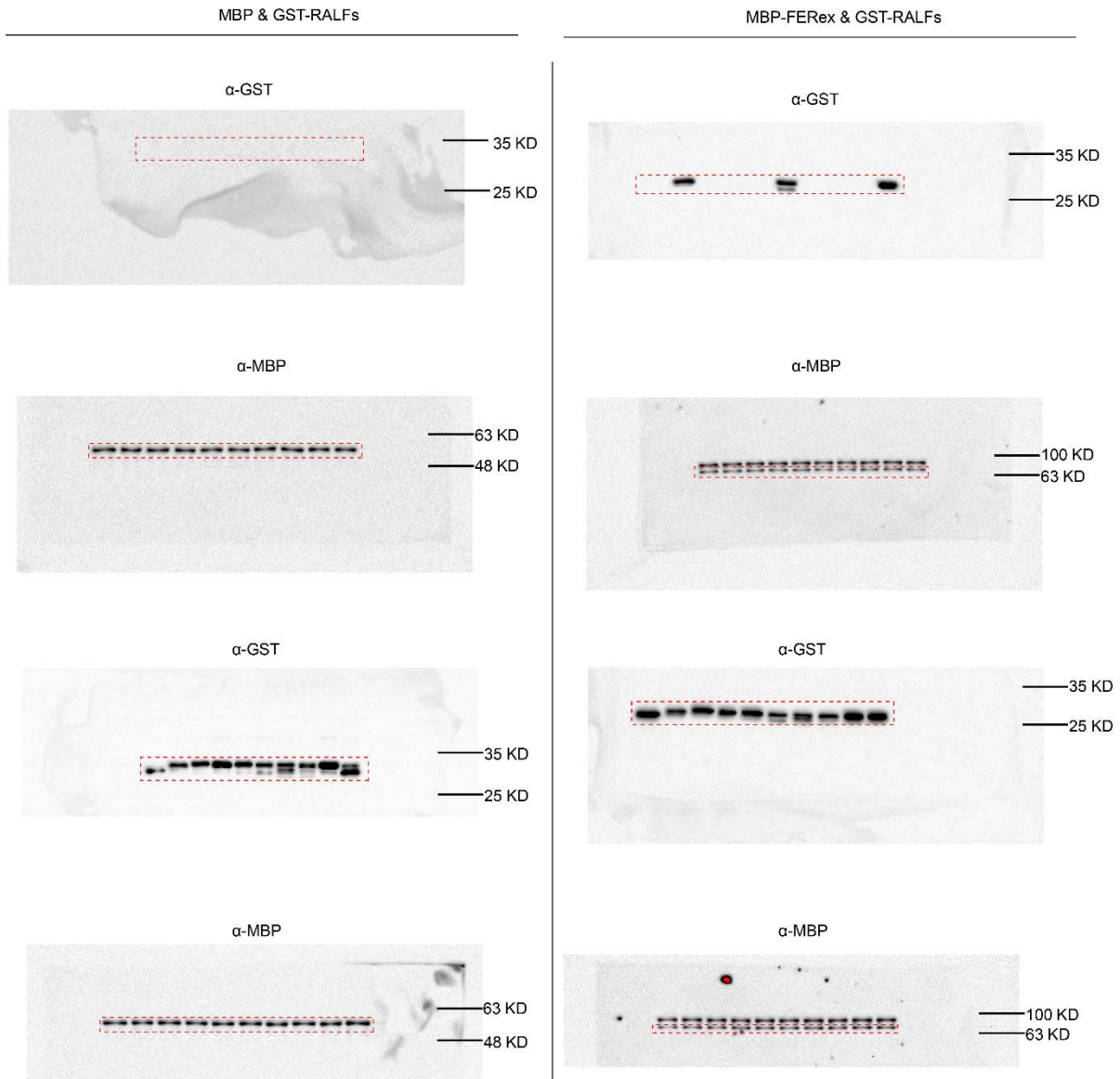
30

31 **Supplementary Fig. 1.** Uncropped images for Fig. 1a, 1b, 1c and 2c

32 **Supplementary Fig. 1a.** Uncropped images for Fig. 1a

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Fig. 1a



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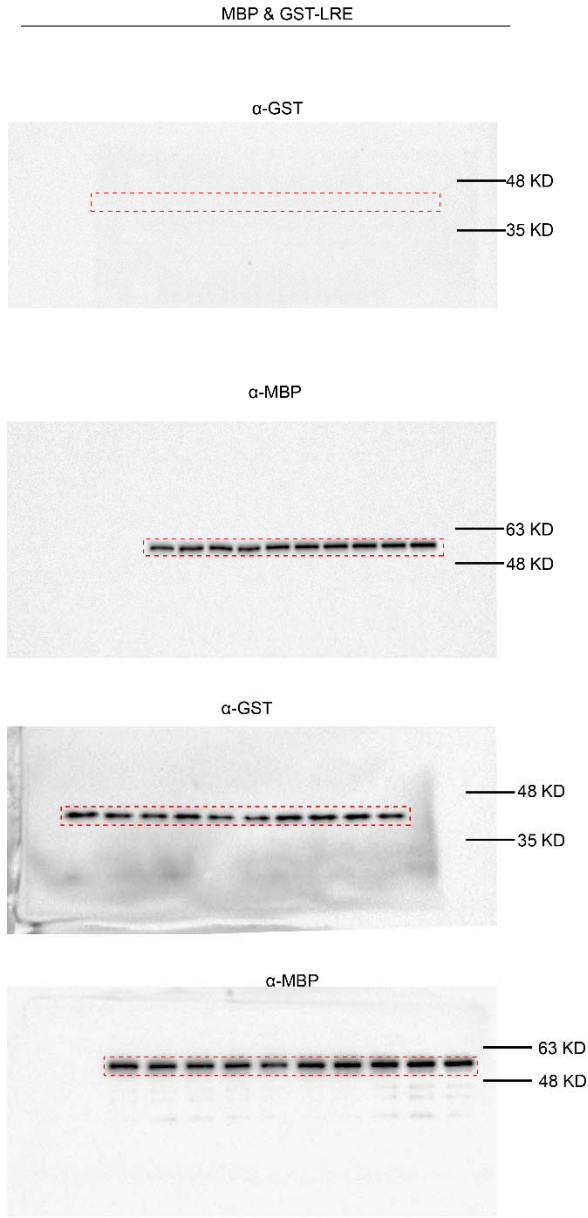
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36 **Supplementary Fig. 1b.** Uncropped images for Fig. 1b

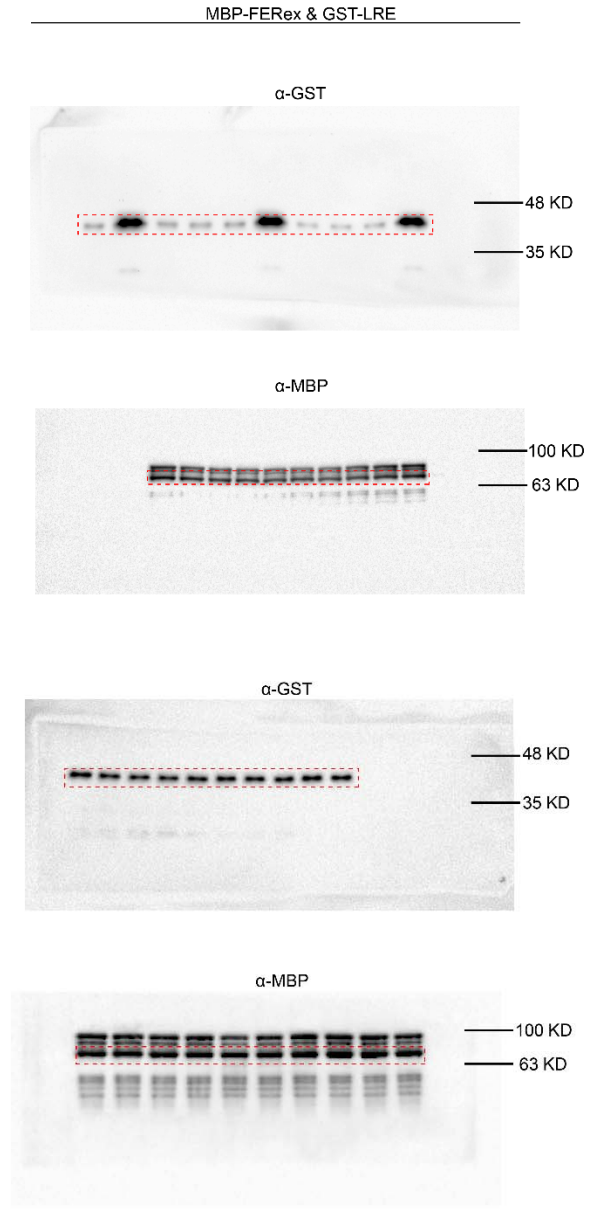
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Fig. 1b



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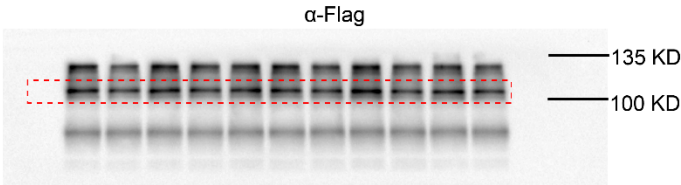
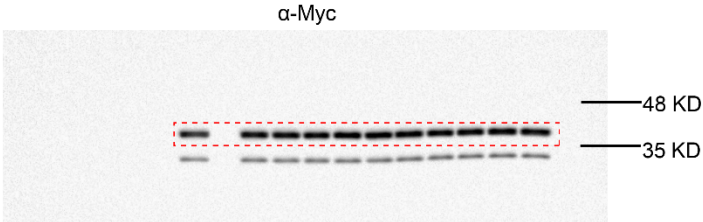
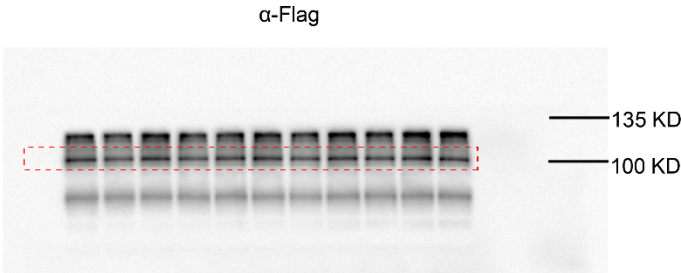
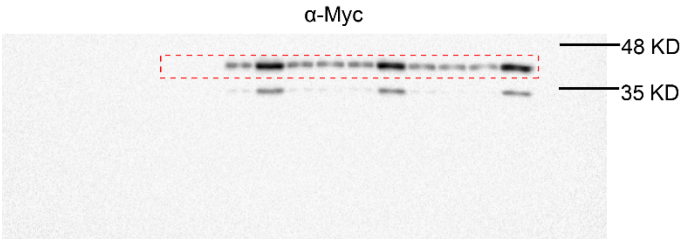


40 **Supplementary Fig. 1c.** Uncropped images for Fig. 1c

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Fig. 1c



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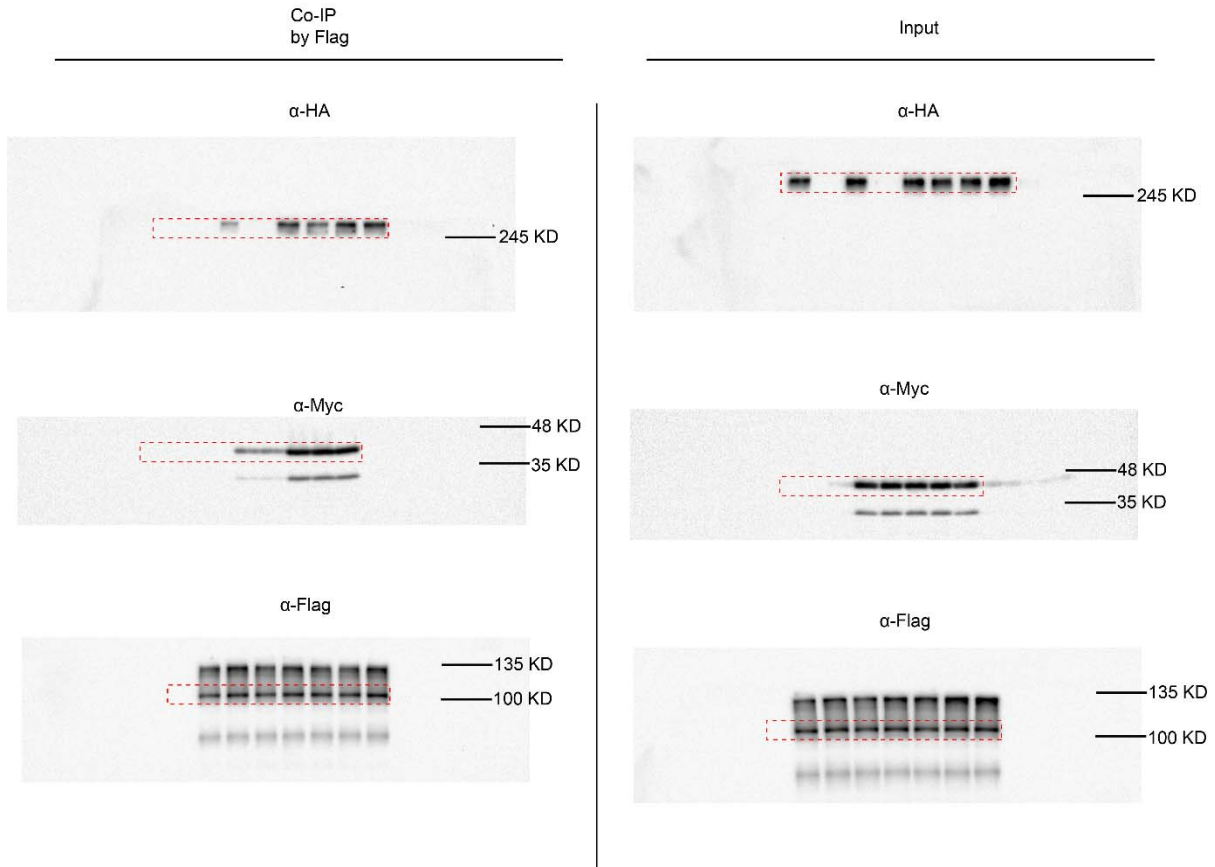
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47 **Supplementary Fig. 1d.** Uncropped images for Fig. 2c

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Fig. 2c



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