

## Supplementary information

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# Identification of trypsin-degrading commensals in the large intestine

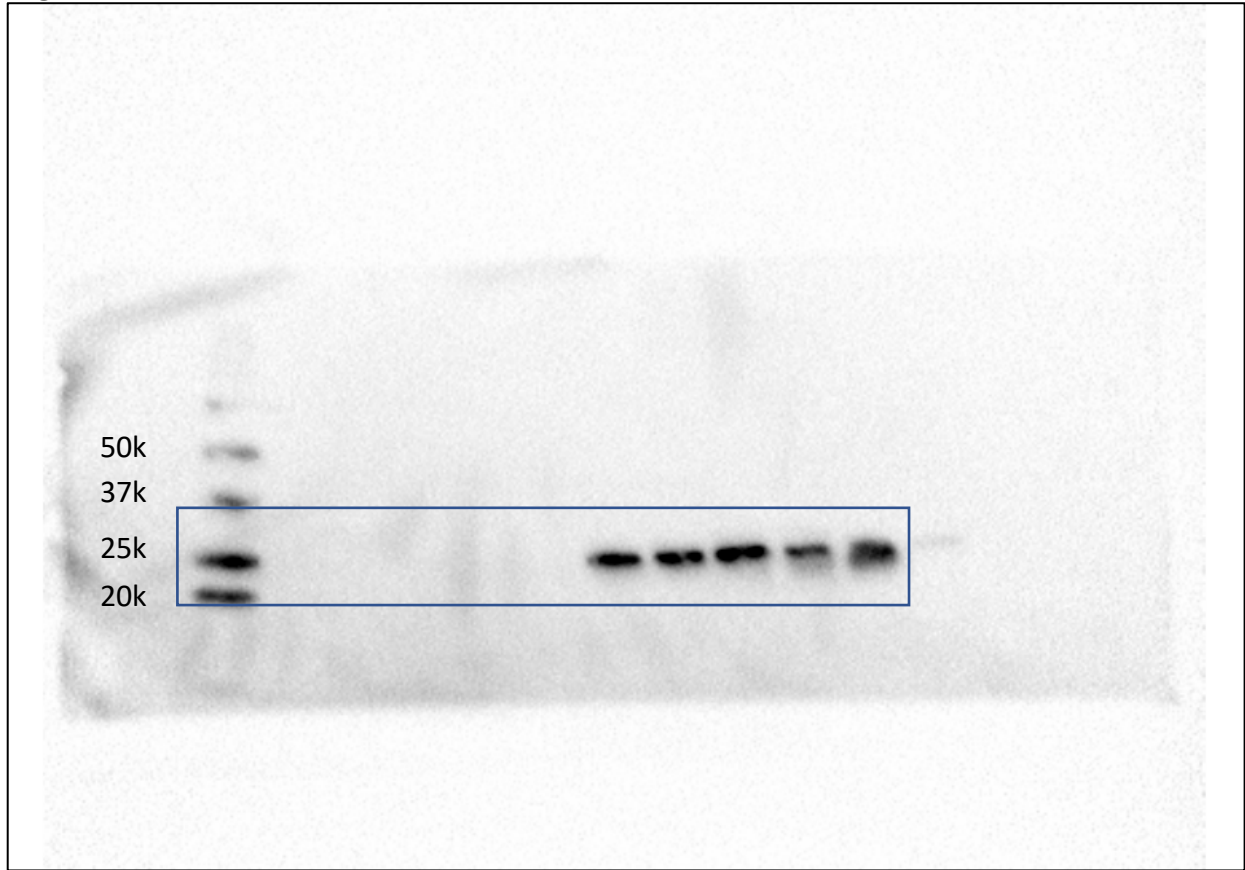
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In the format provided by the authors and unedited

# Supplementary Figure 1

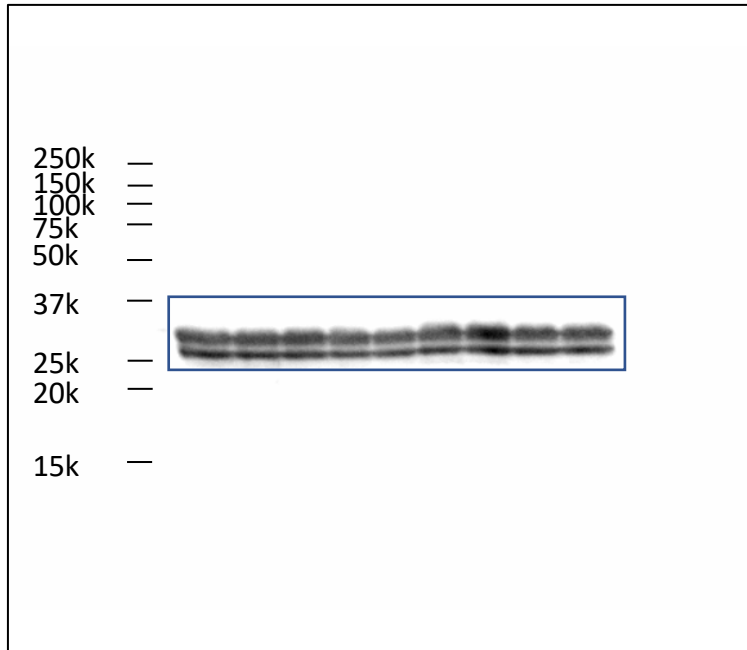
Original source images for data obtained by electrophoretic separation

**Fig. 1c PRSS2**

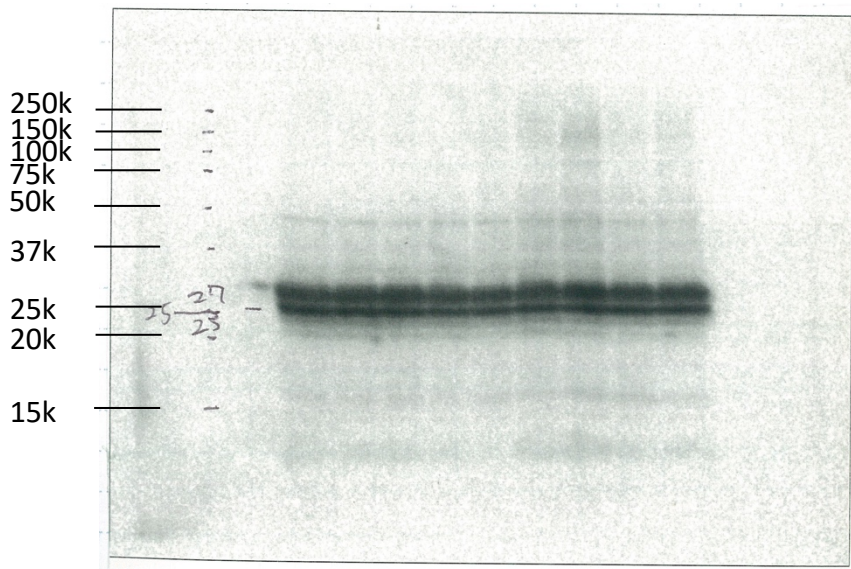


**Fig. 1f top panel PRSS2**

**Note:** positions of markers were based on the positions of the markers on the blotting membrane. The markers used in this experiment did not have an HRP conjugate hence hardly visible when scanned.

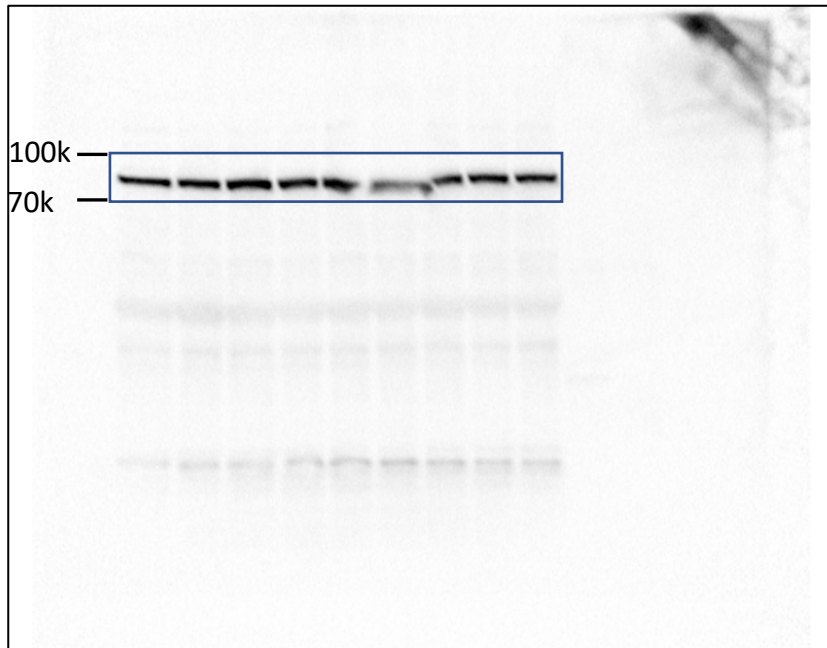


Long exposure time (from the notebook, for reference)



**Fig 1f Bottom panel Hsp90 (separate membrane)**

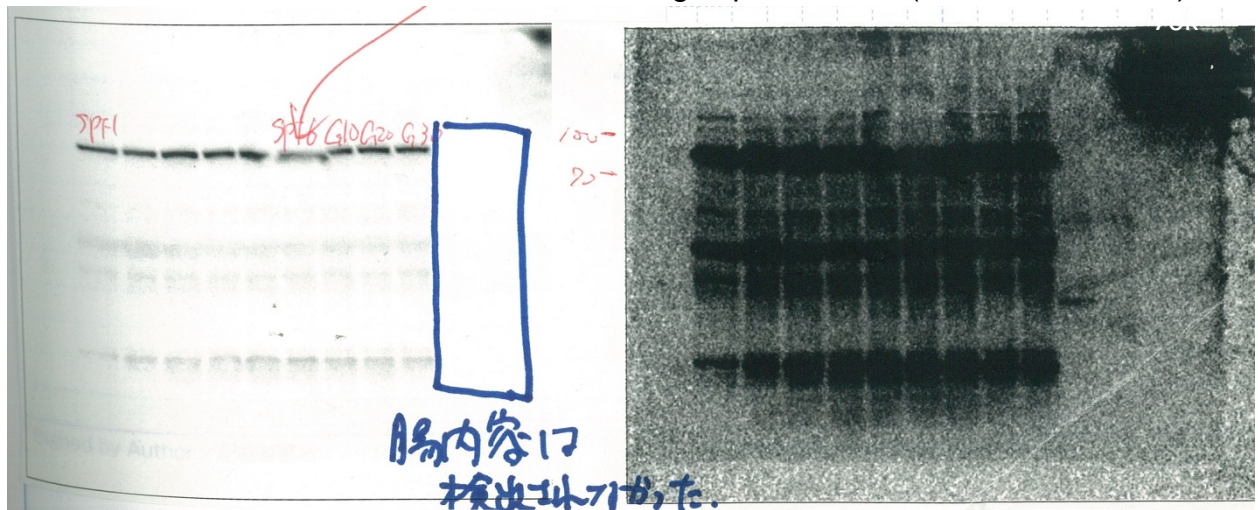
Note: positions of markers were based on the positions of the markers on the blotting membrane. The markers used in this experiment did not have an HRP conjugate hence hardly visible when scanned.



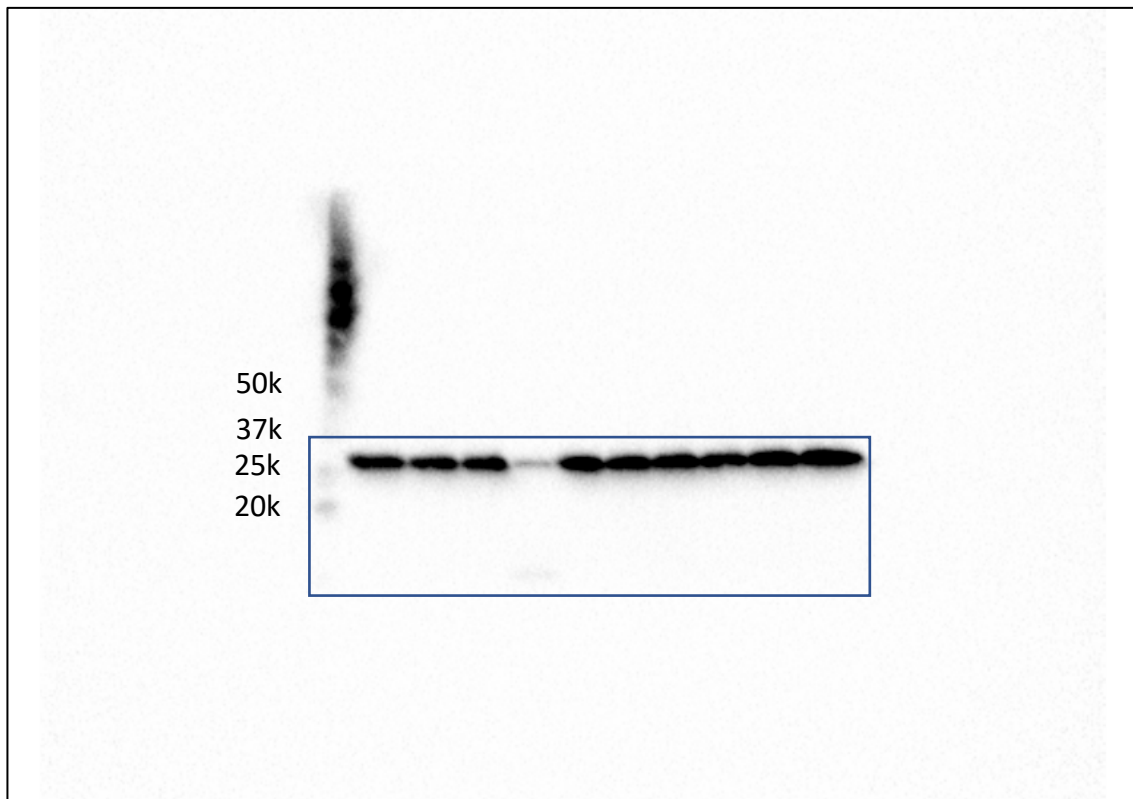
Original data from the notebook for reference:

short exposure time (from the notebook)

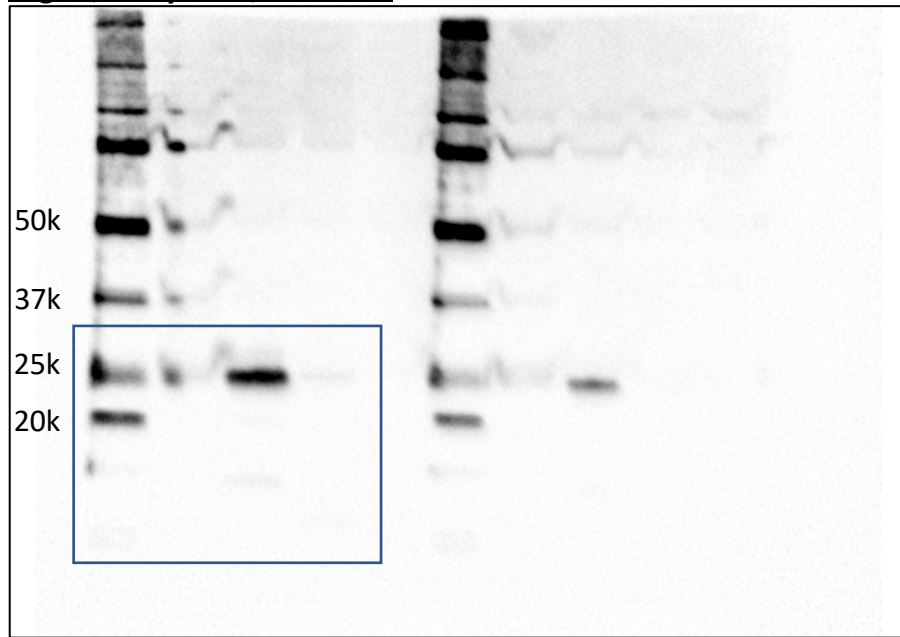
Long exposure time (from the notebook)



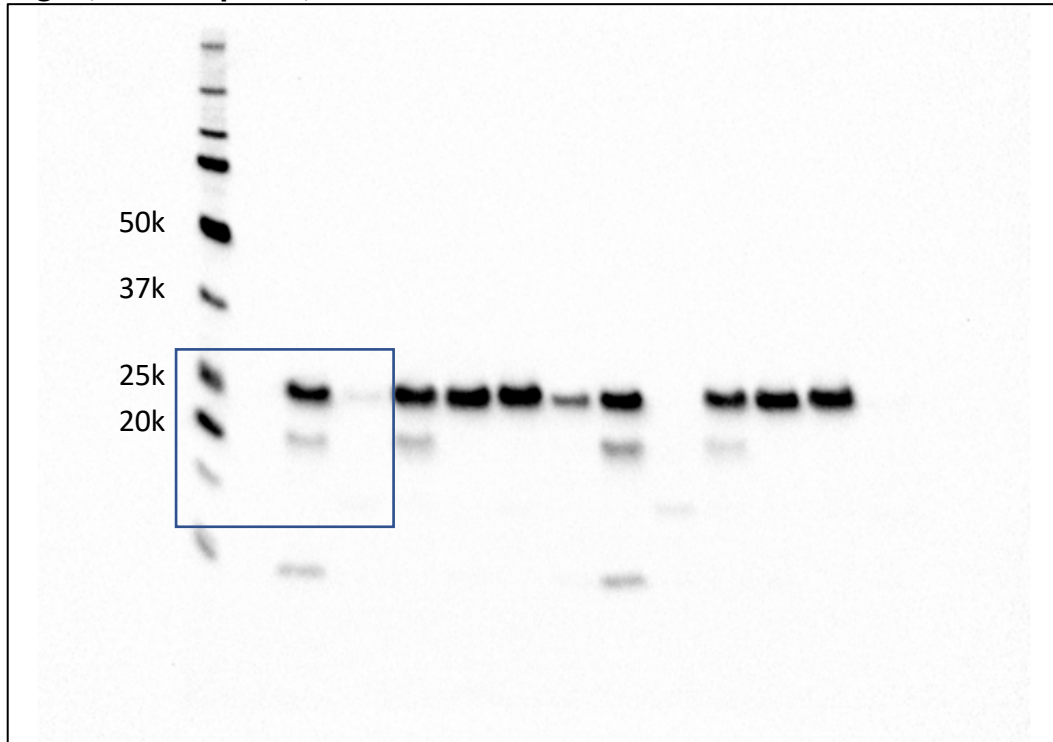
**Fig 2f (rmPRSS2)**



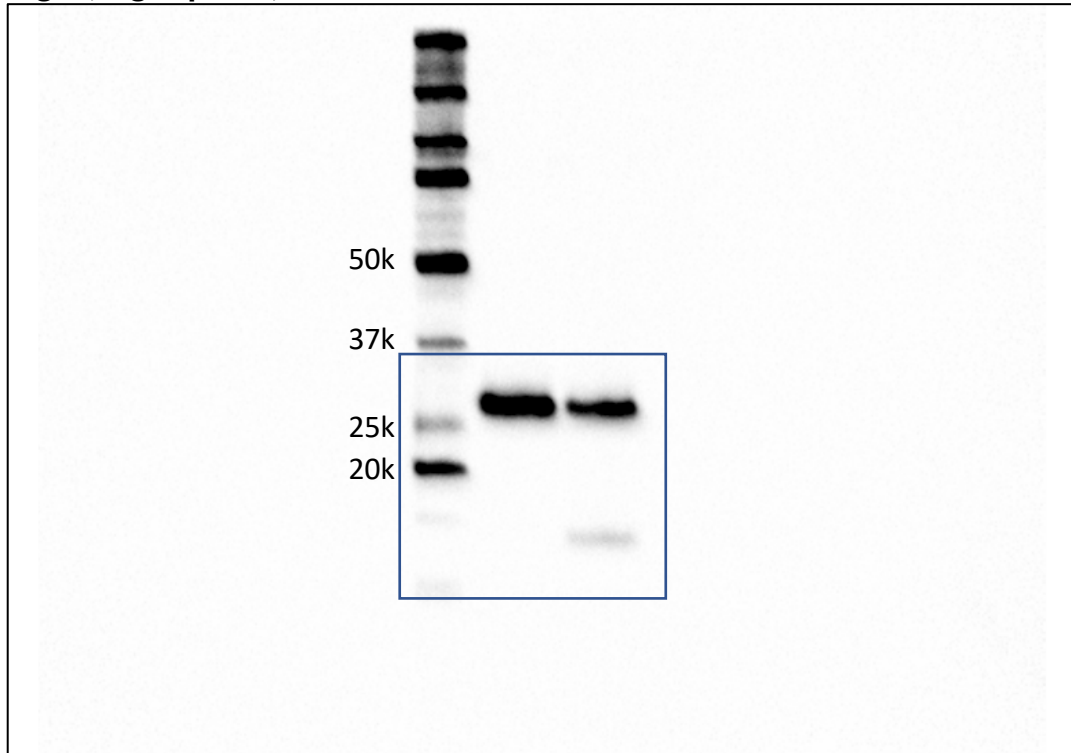
**Fig 2i, left panel, hPRSS1**



**Fig 2i, middle panel, hPRSS2**



**Fig 2i, right panel, hPRSS3**



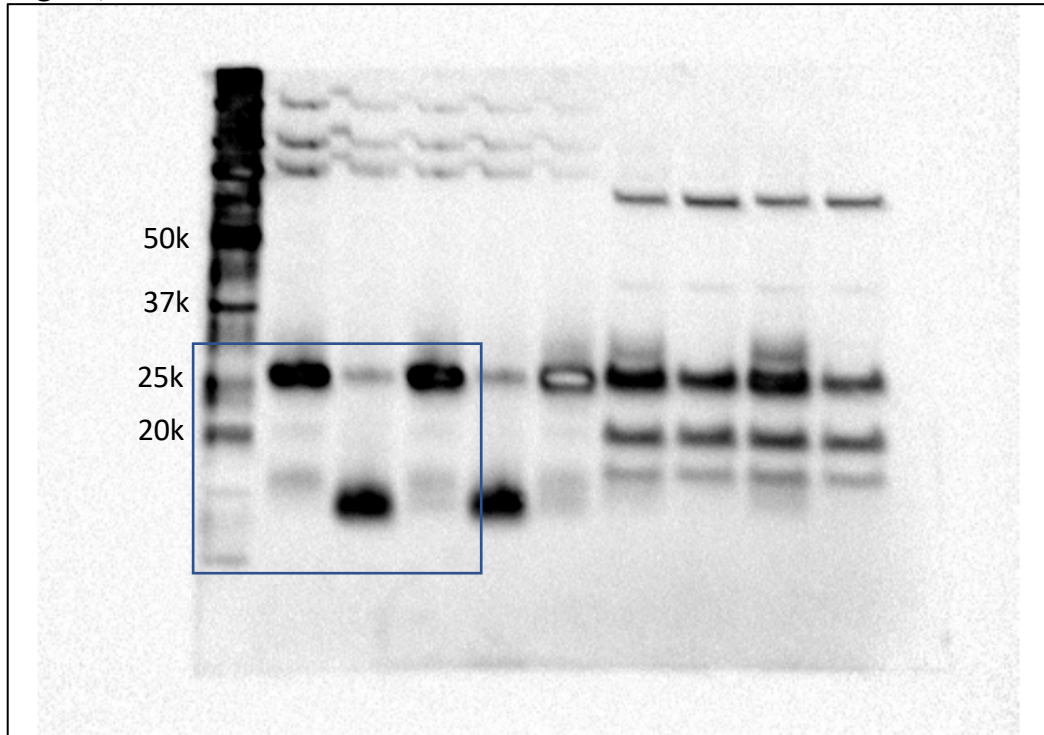


**Fig 2j (rmPRSS2)**

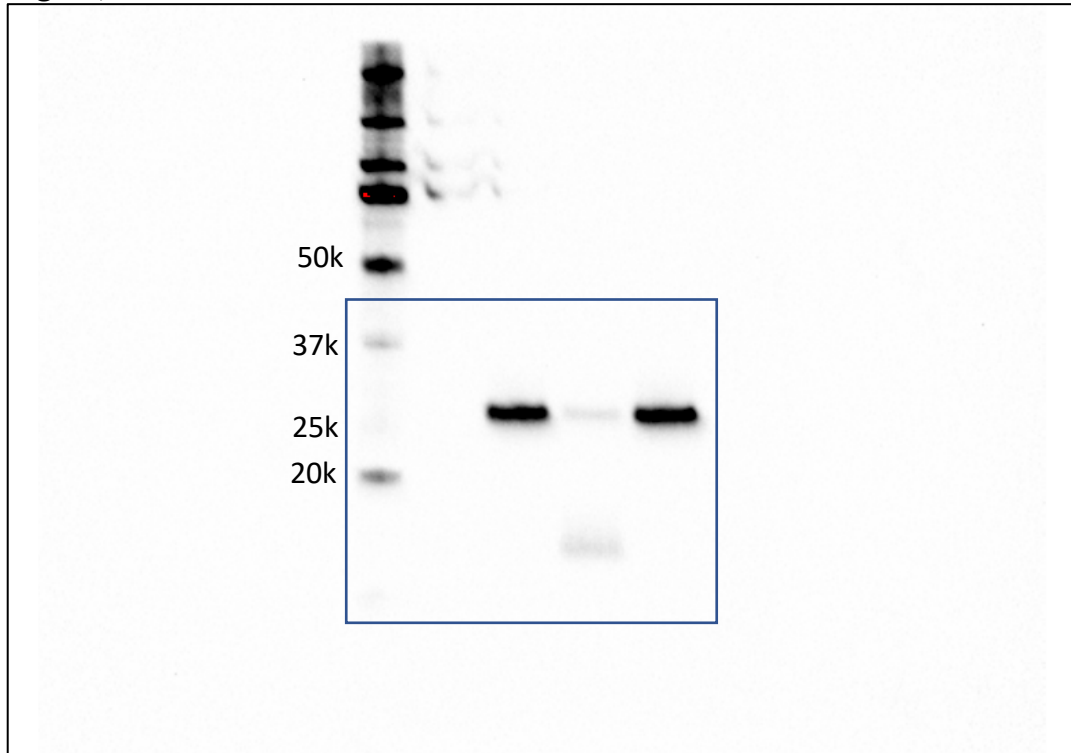




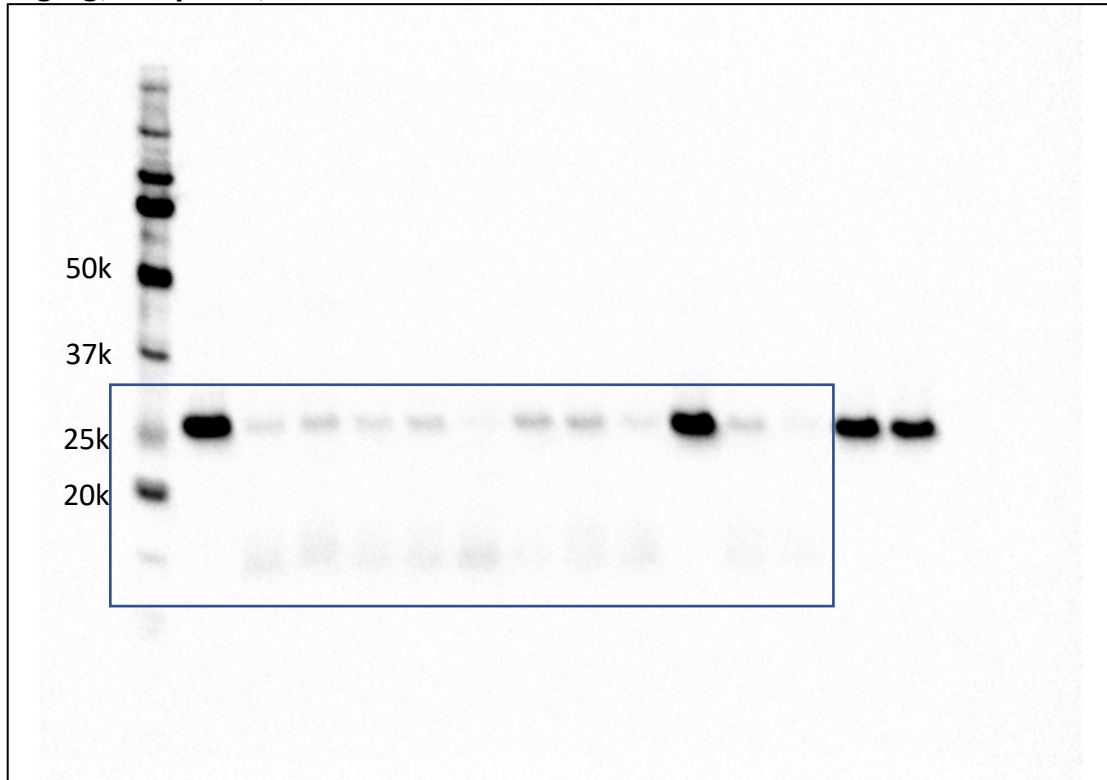
**Fig 3c, rmPRSS2**



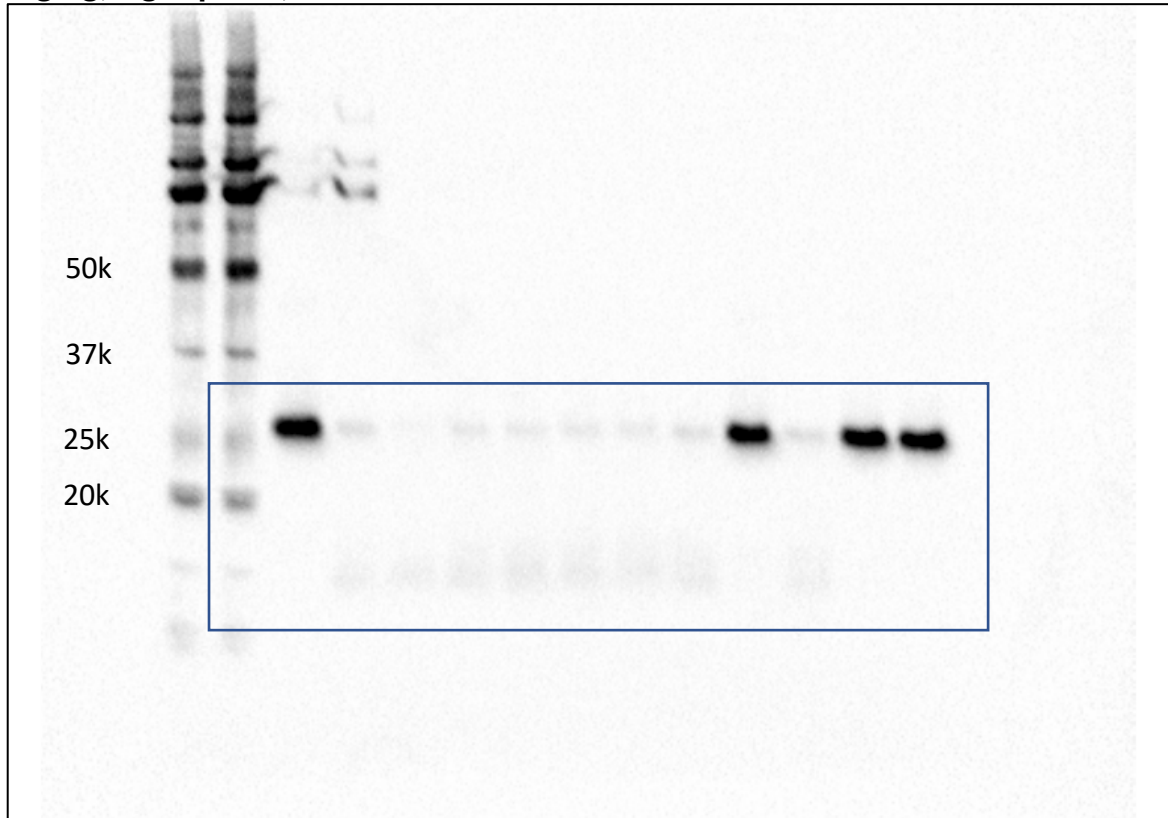
**Fig 3e, rmPRSS2**



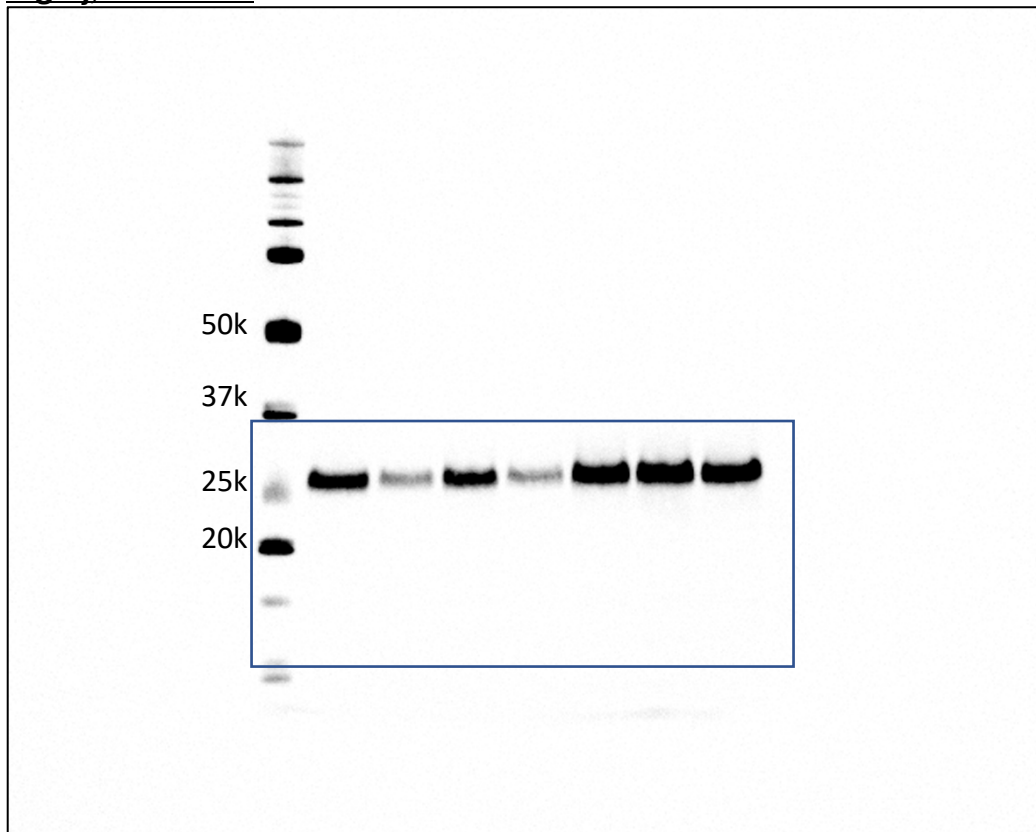
**Fig 3g, left panel, rmPRSS2**



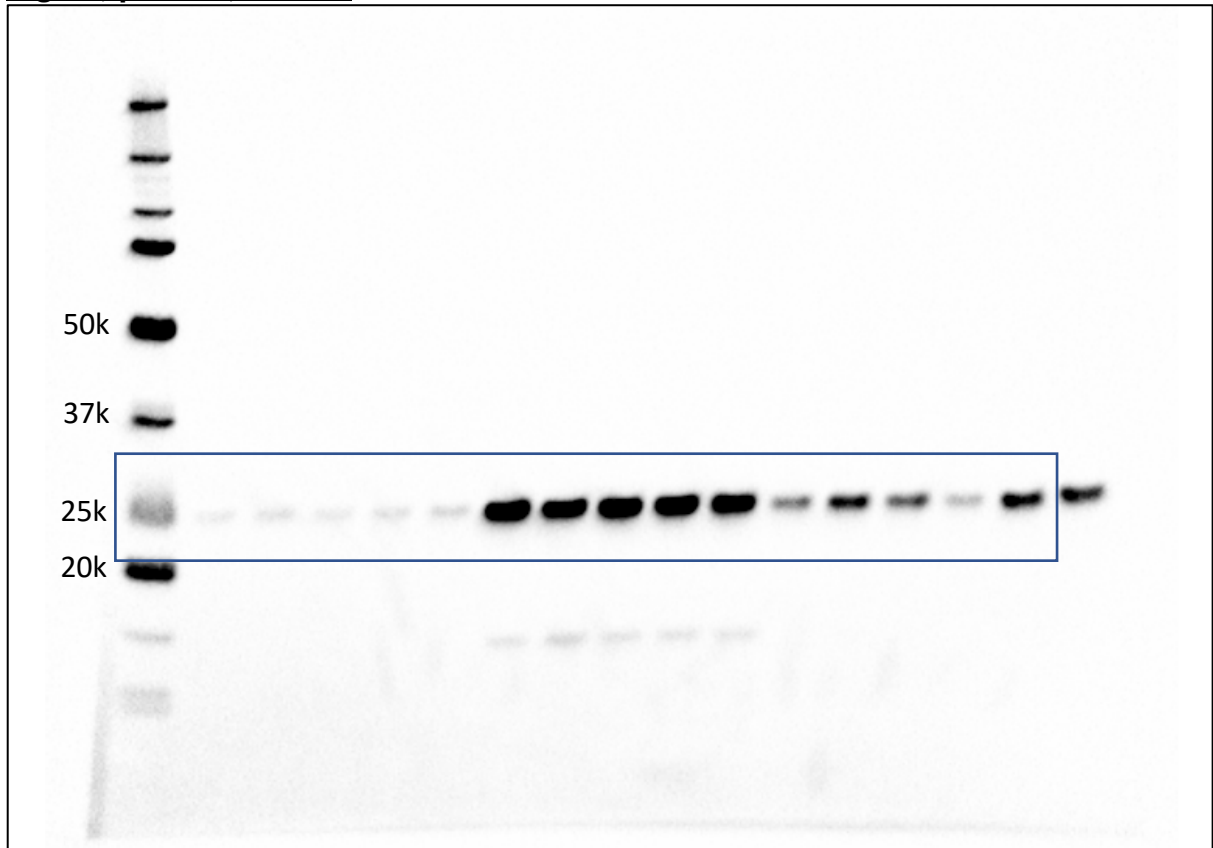
**Fig 3g, right panel, rmPRSS2**



**Fig 3j. rmPRSS2**



**Fig 4b, panel 1, PRSS2**

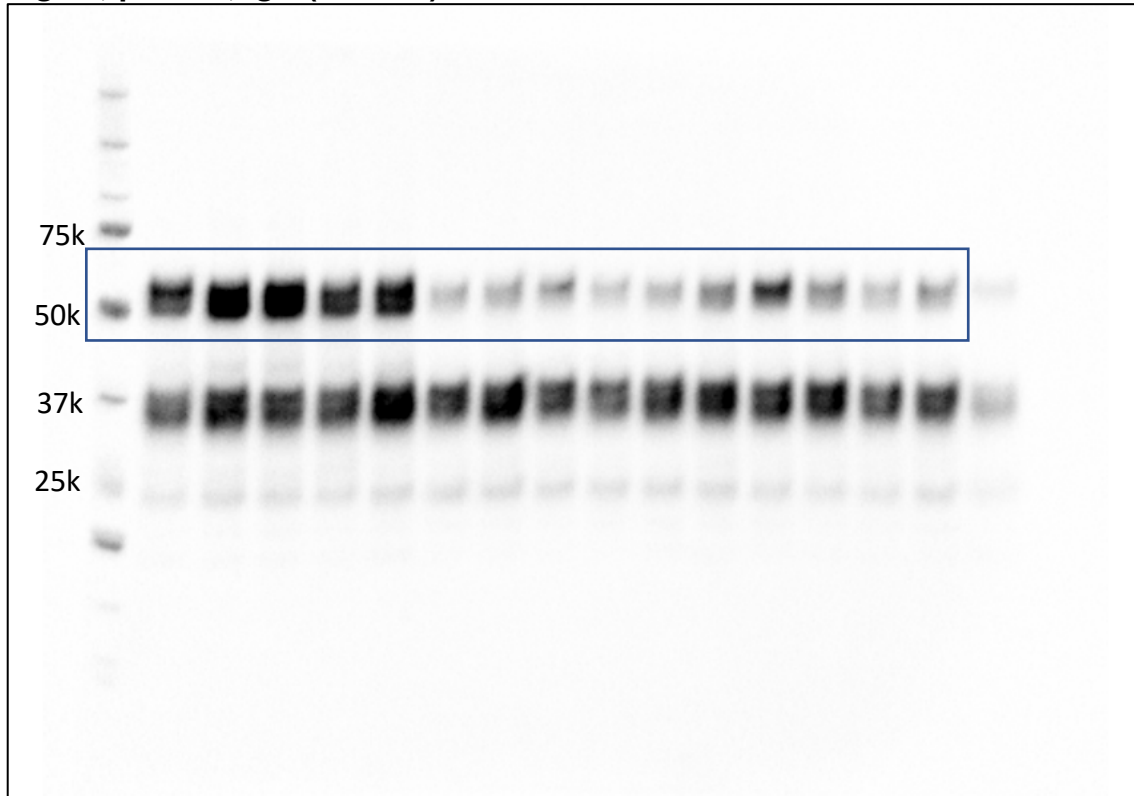




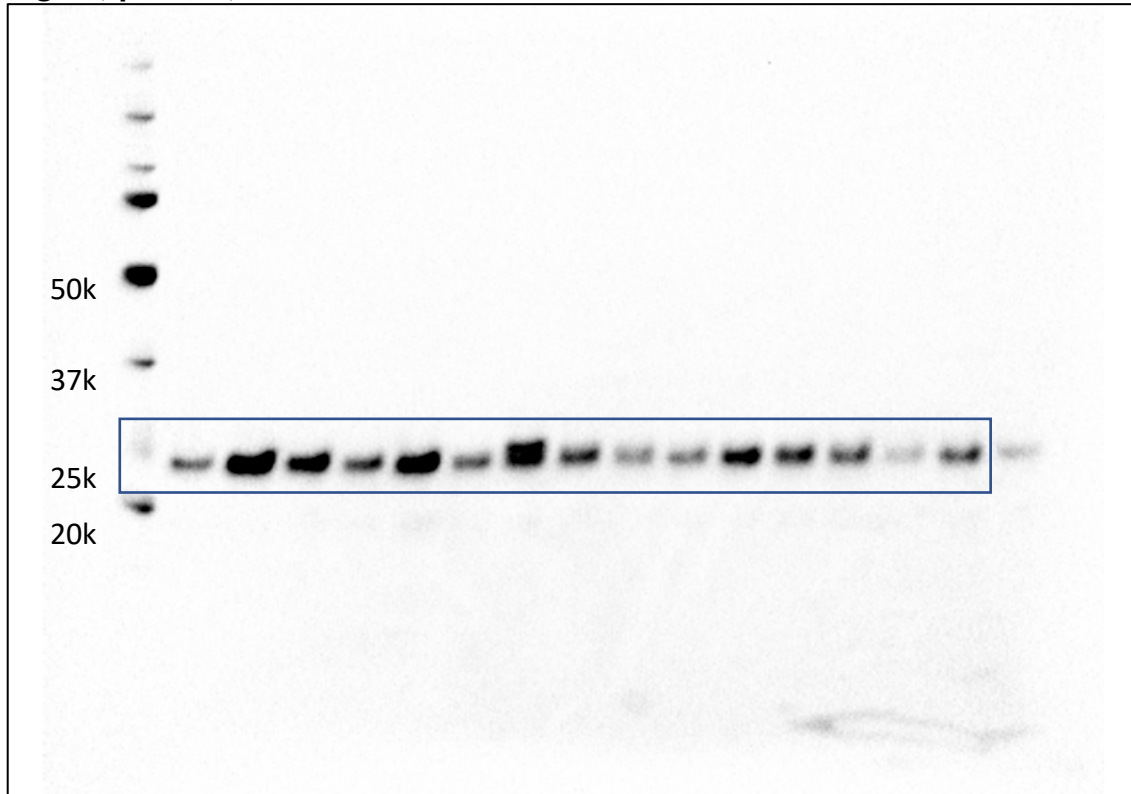
**Fig 4b, panel 2, TMPRSS2**



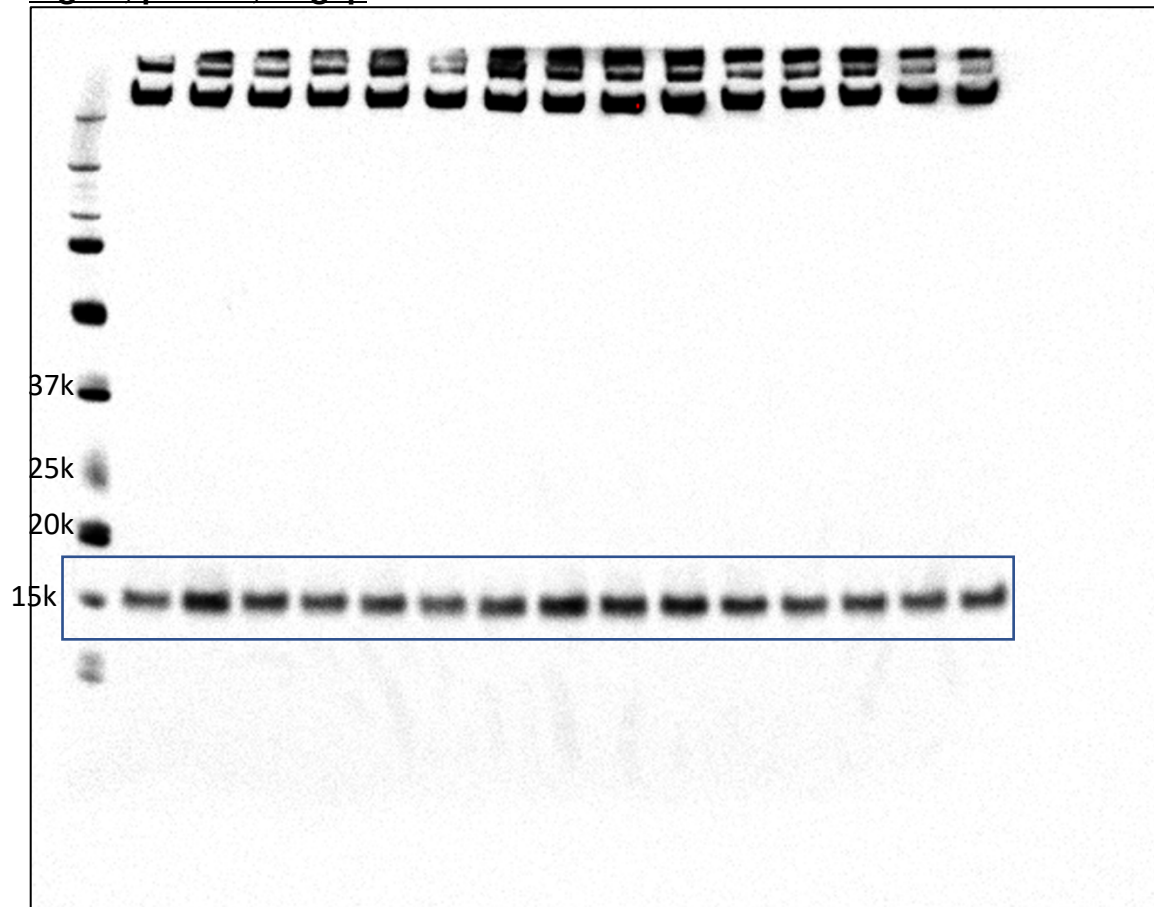
**Fig 4b, panel 3, IgA ( $\alpha$  chain)**



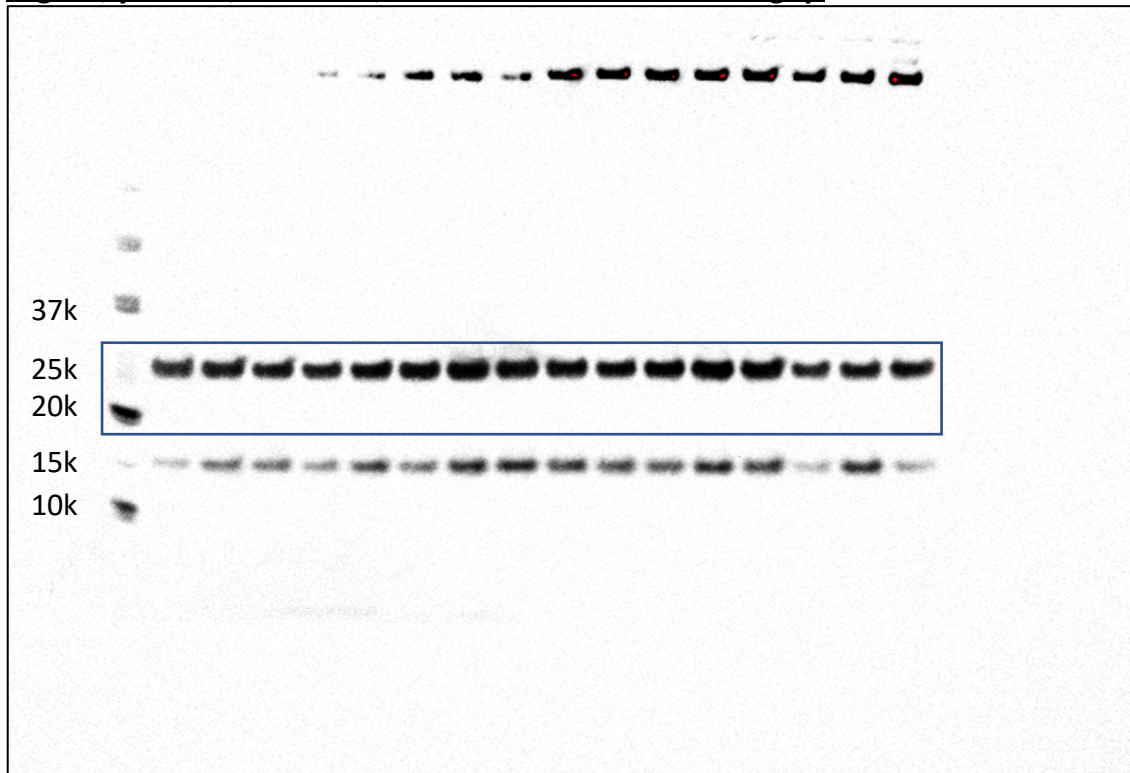
**Fig 4b, panel 4, κ chain**



**Fig 4b, panel 5, Reg3 $\beta$**



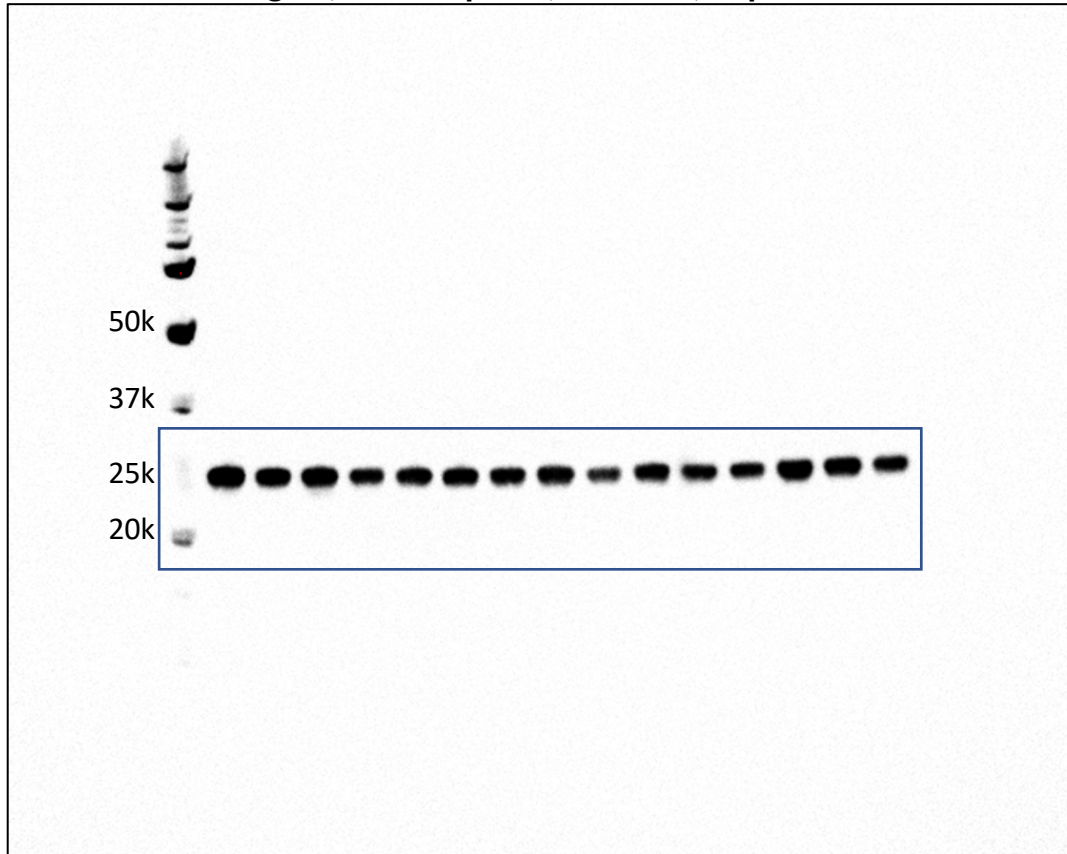
**Fig 4b, panel 6, CELA3B, same membrane with Reg3 $\beta$**



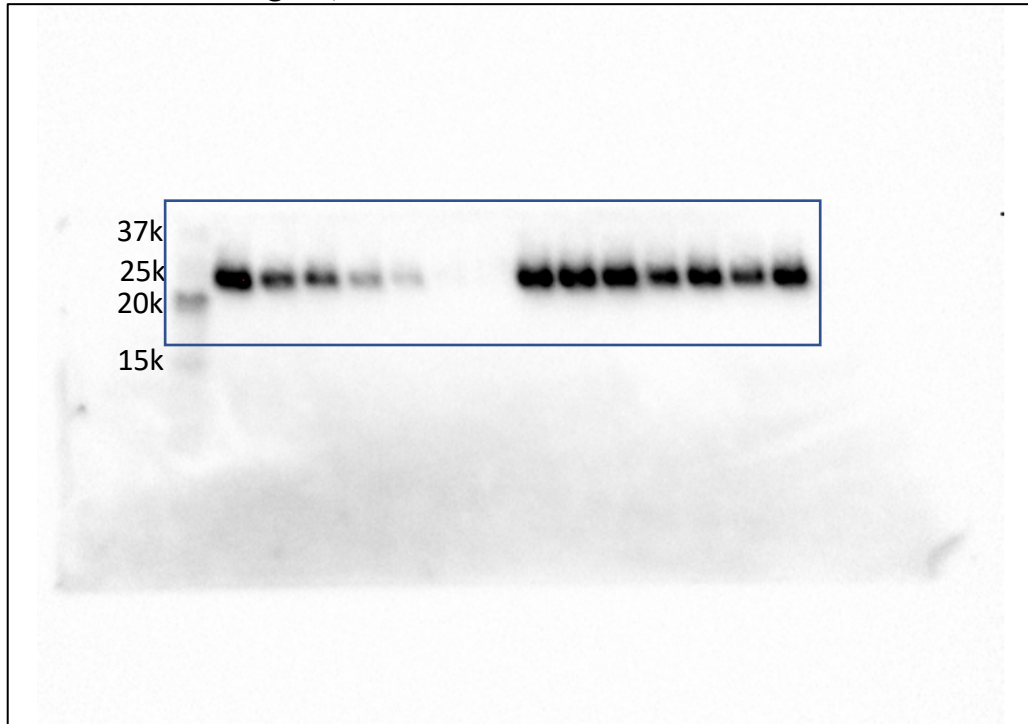
**Extended Data Fig 2c, top panel, PRSS2**



**Extended Data Fig 2c, bottom panel, CELA3B, separate membrane**

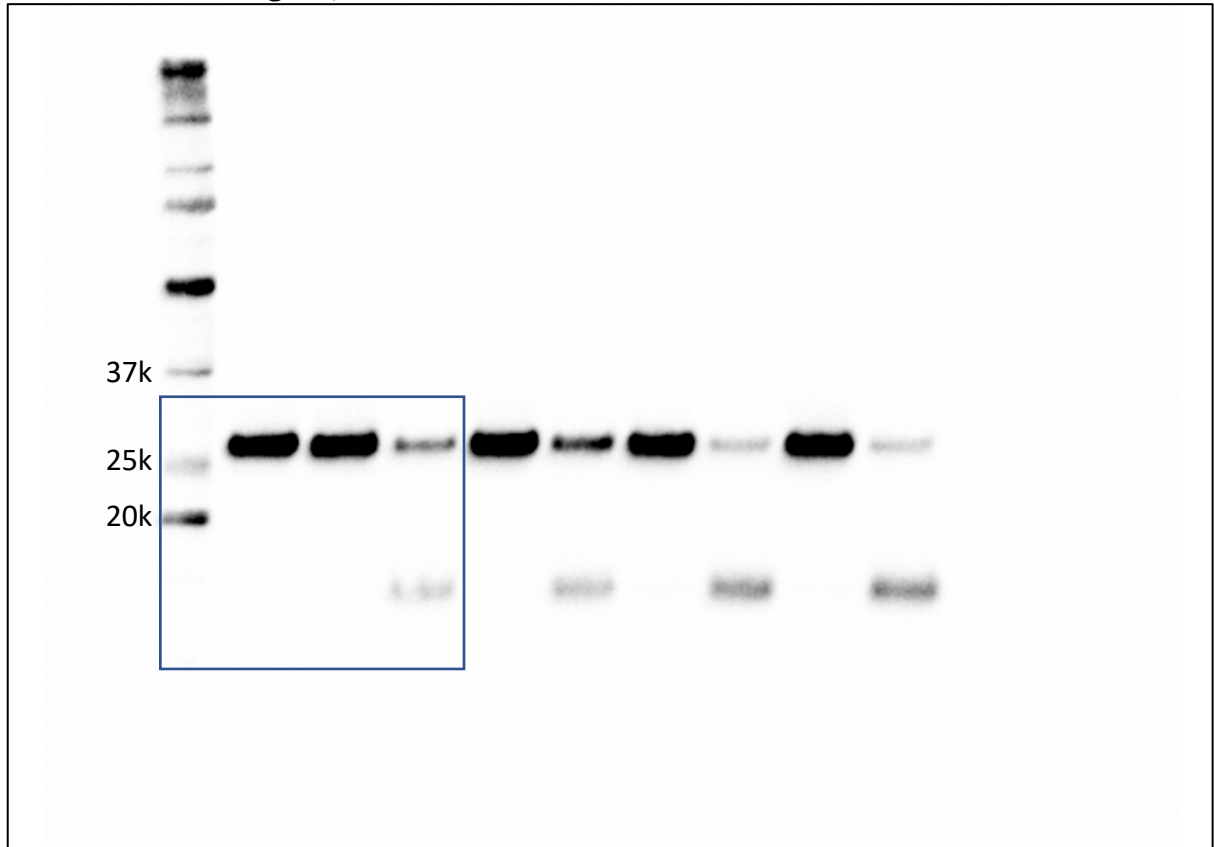


**Extended Data Fig 3b, PRSS2**

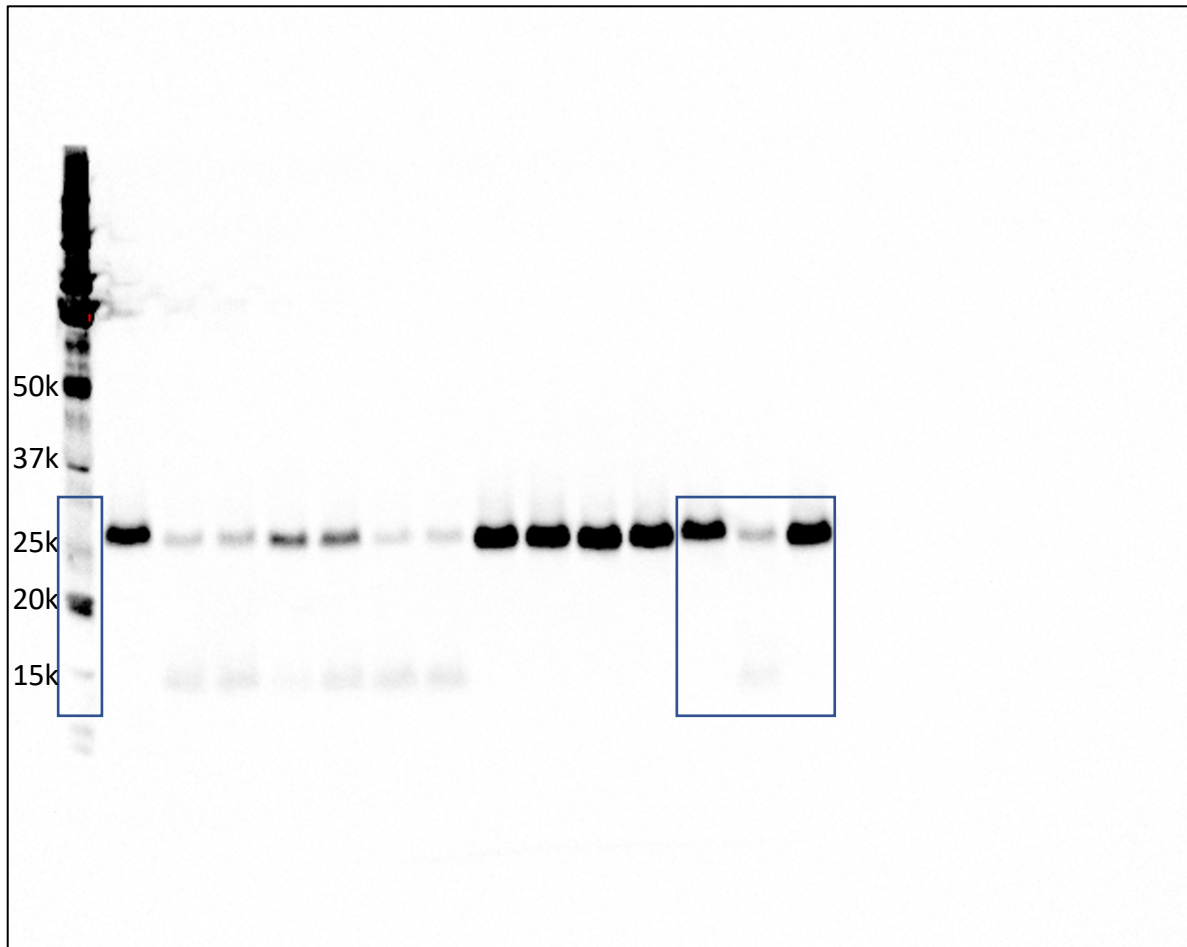




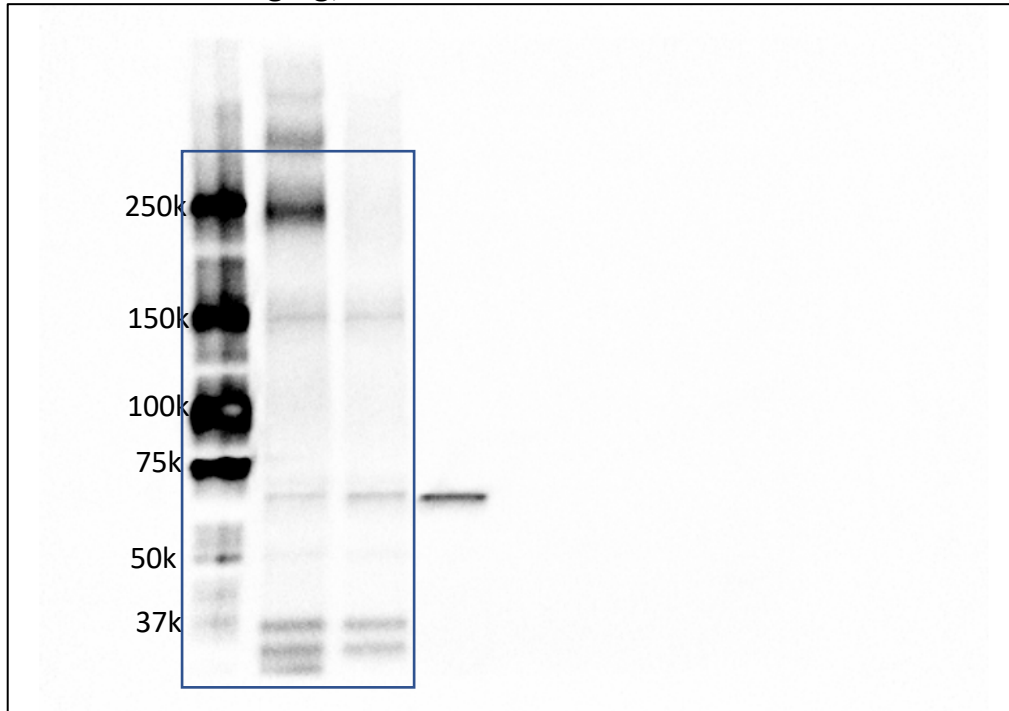
**Extended Data Fig 3d, rmPRSS2**



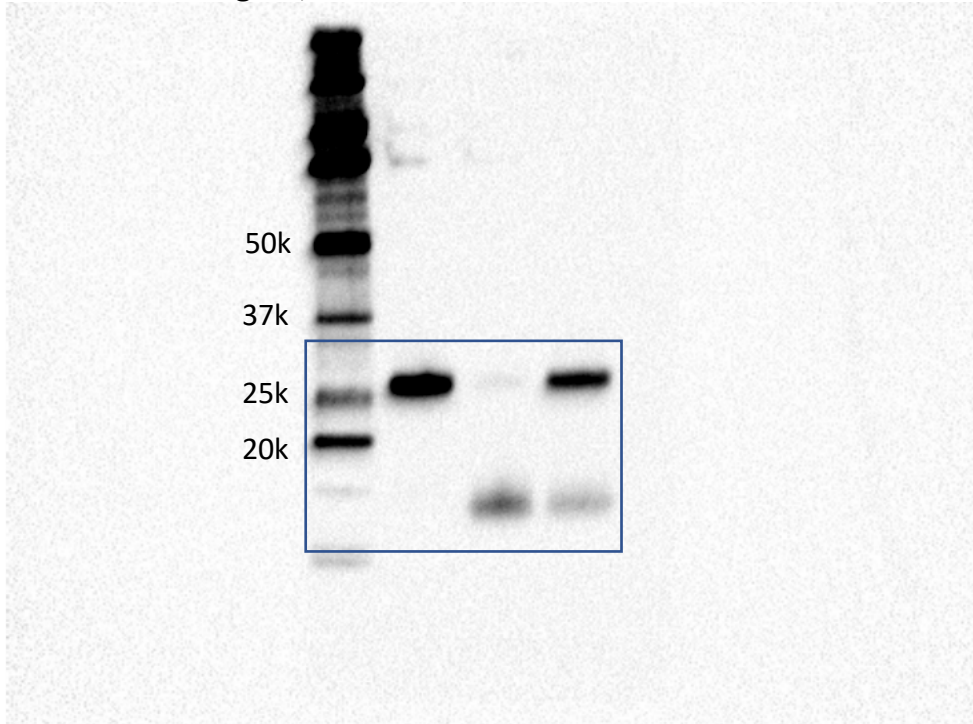
**Extended Data Fig 3e, rmPRSS2**



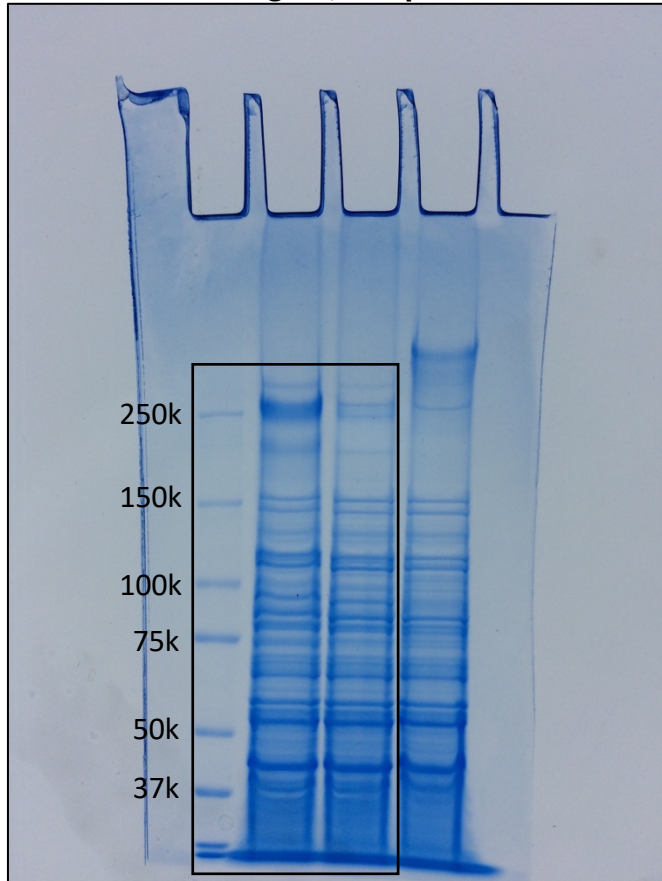
**Extended Data Fig 3g, rmPRSS2**



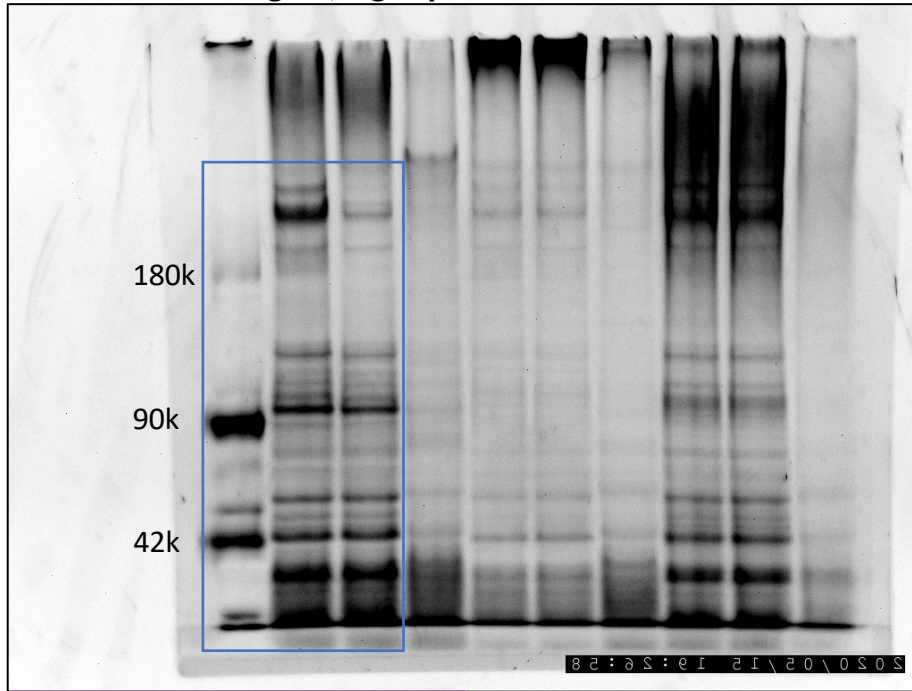
**Extended Data Fig 4b, rmPRSS2**



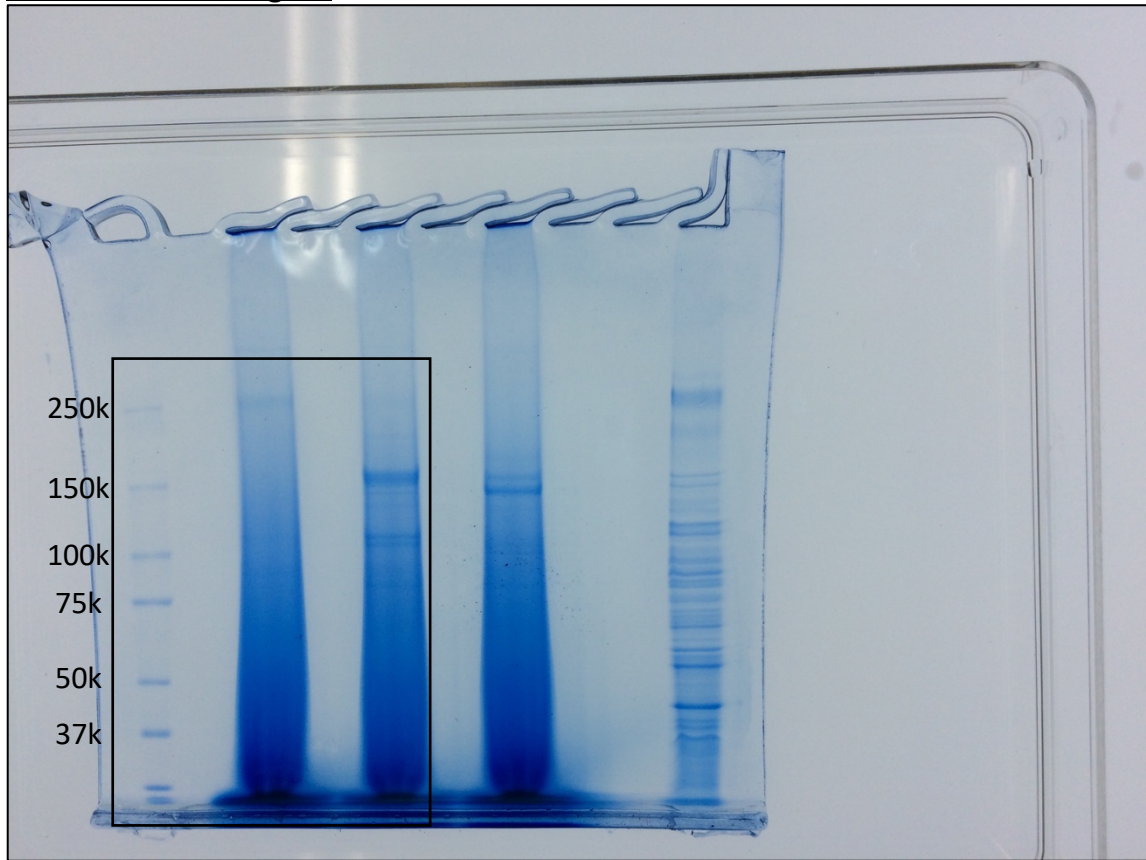
**Extended Data Fig 4c, left panel**



**Extended Data Fig 4c, right panel**



**Extended Data Fig 4d**



Extended Data Fig 5b top left panel, WecA mutant





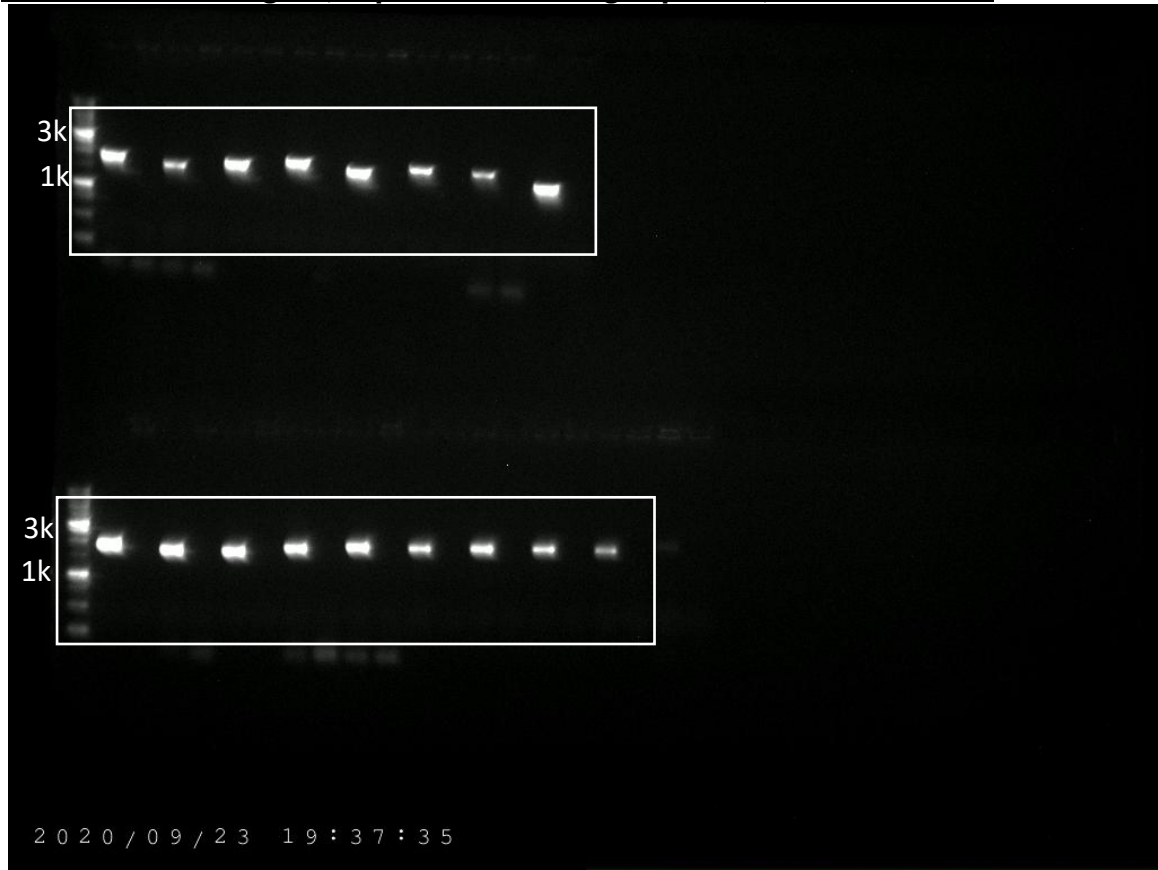
**Extended Data Fig 5b, bottom left panel, PorU mutant**



Extended Data Fig 5b, bottom right panel, 00503-00508 mutants



Extended Data Fig 5b, top and middle right panels, other mutants



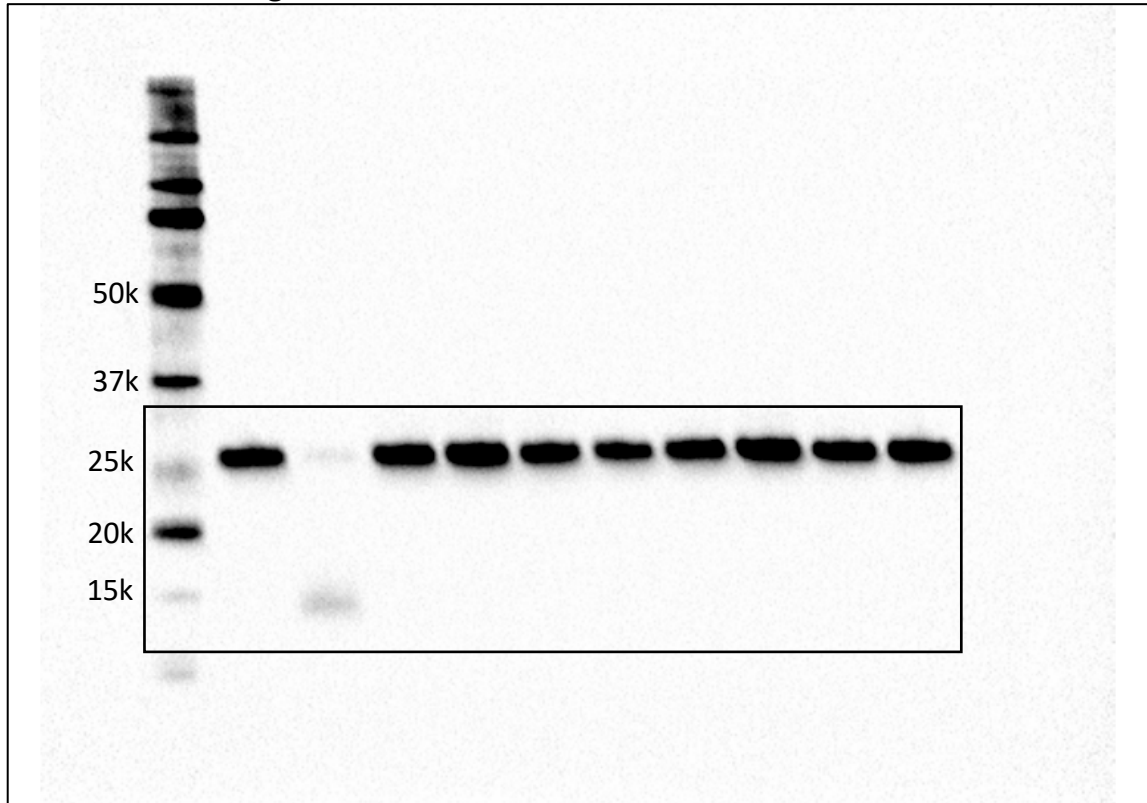
**Extended Data Fig 6a, top panel,  $\Delta$ 03048-03053**



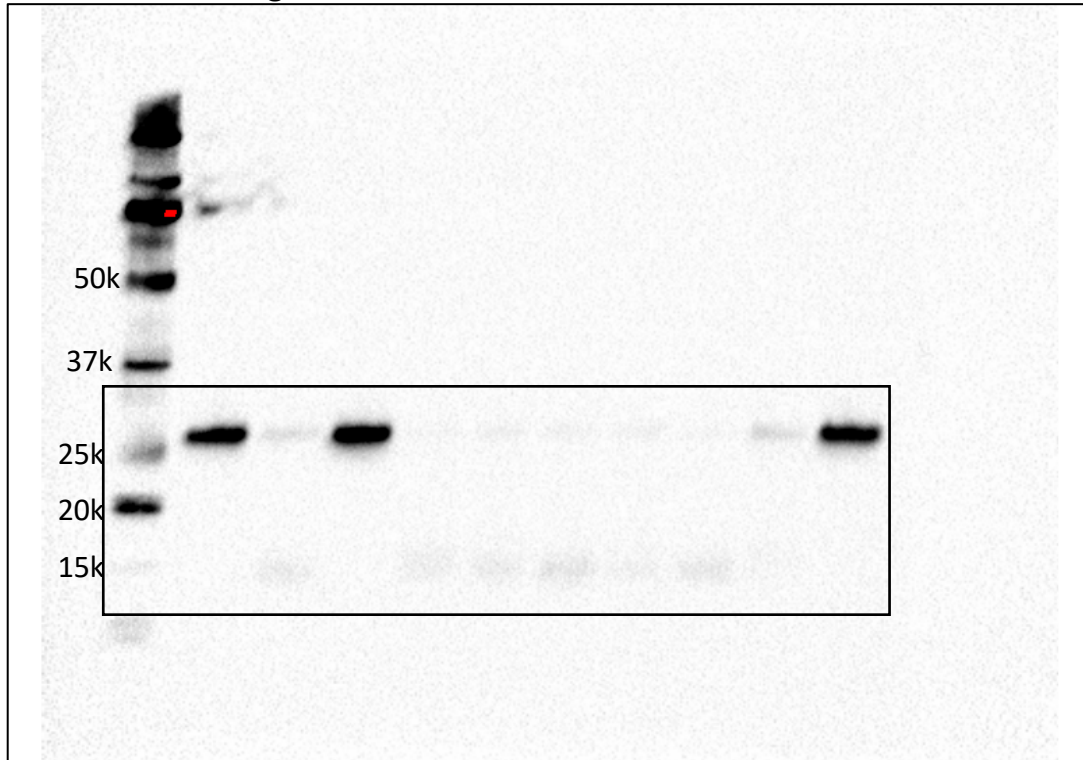
Extended Data Fig 6a, middle and bottom panels,  $\Delta 00502$ ,  $\Delta 00509$



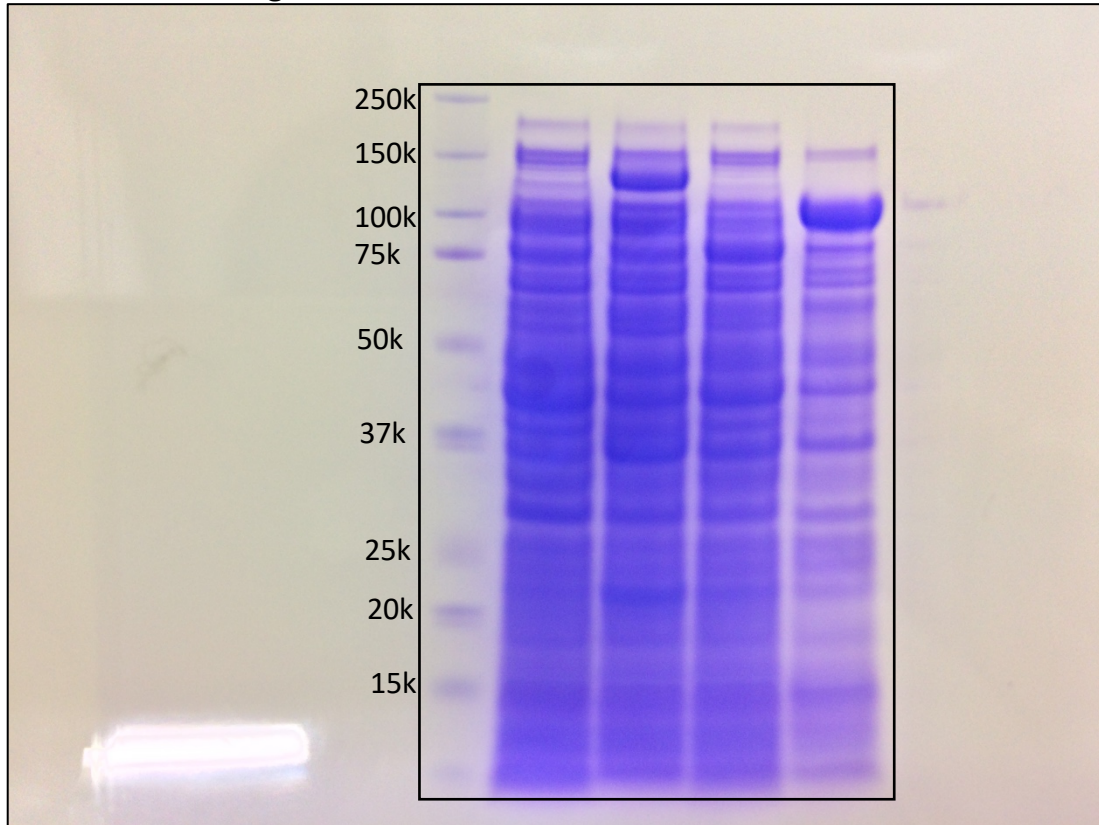
**Extended Data Fig 6b rmPRSS2**



**Extended Data Fig 6e rmPRSS2**

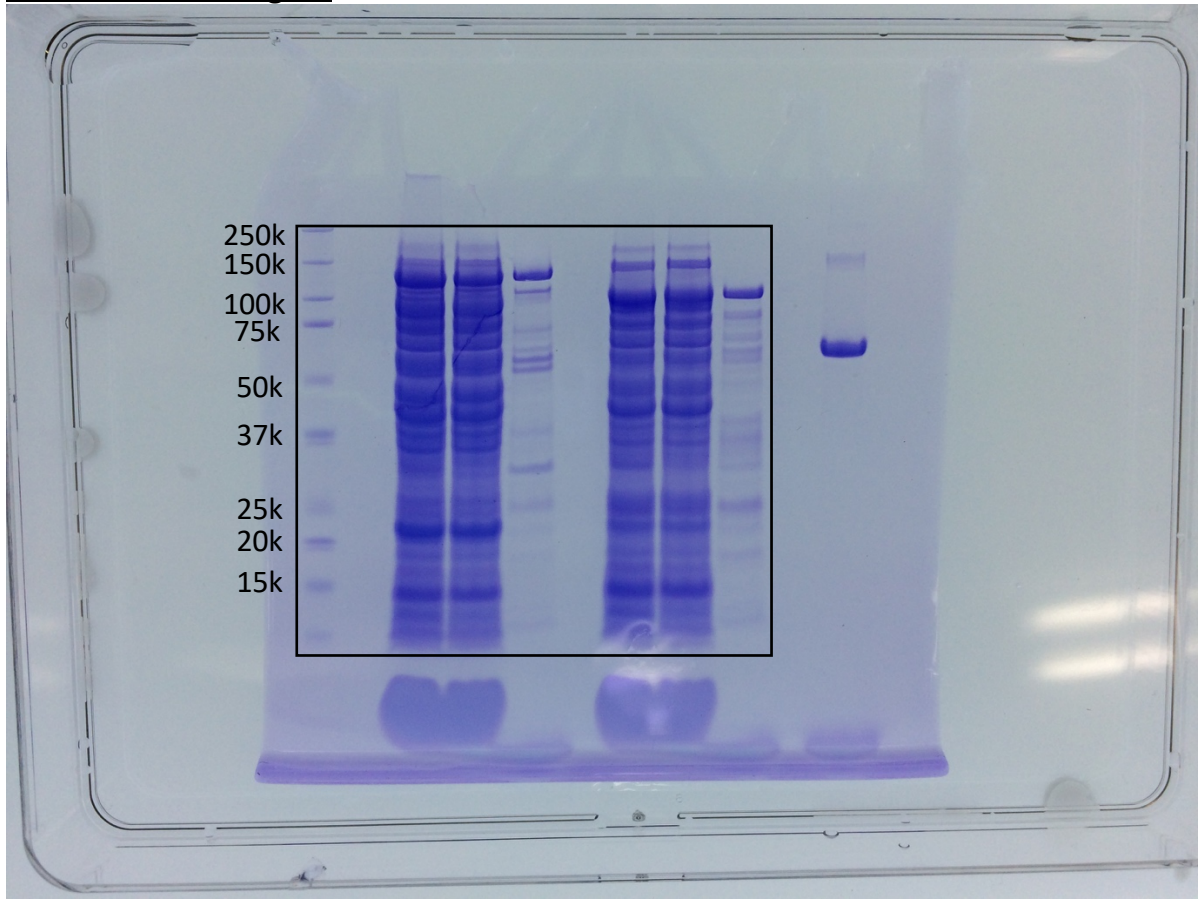


**Extended Data Fig 7a**

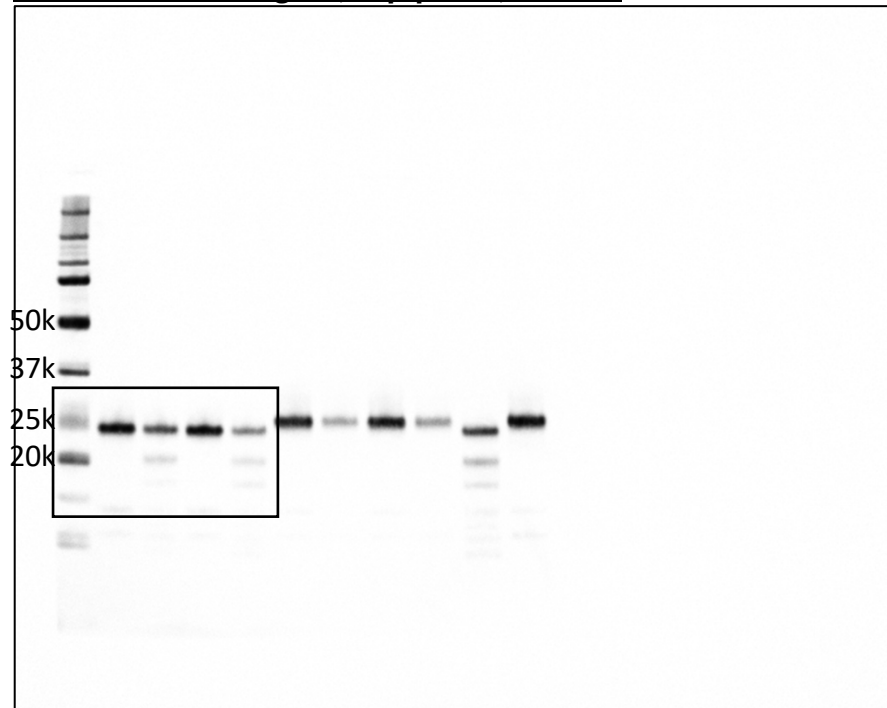




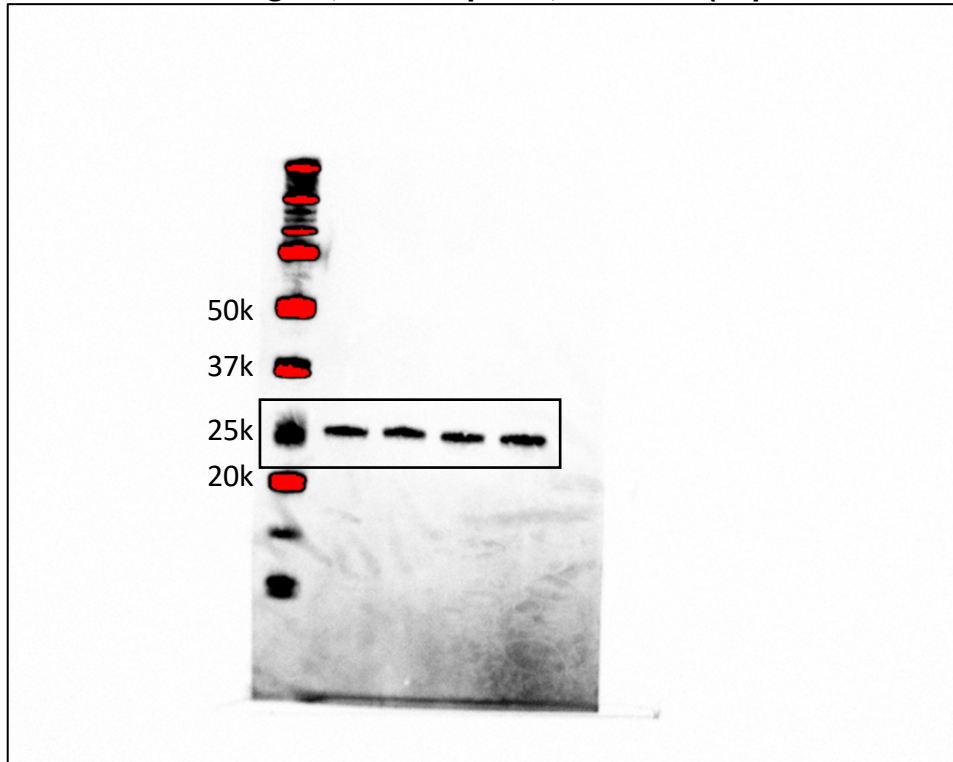
**Extended Data Fig 7b**



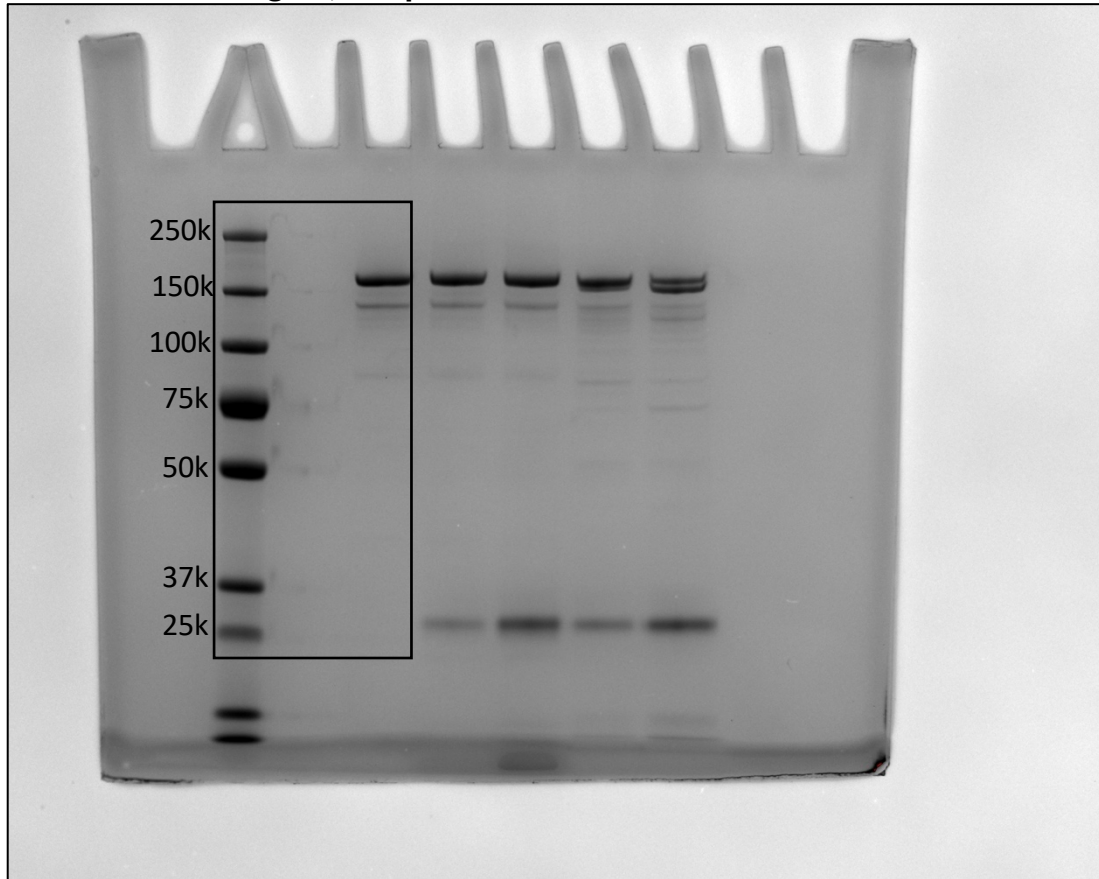
**Extended Data Fig 7d, top panel, PRSS2**



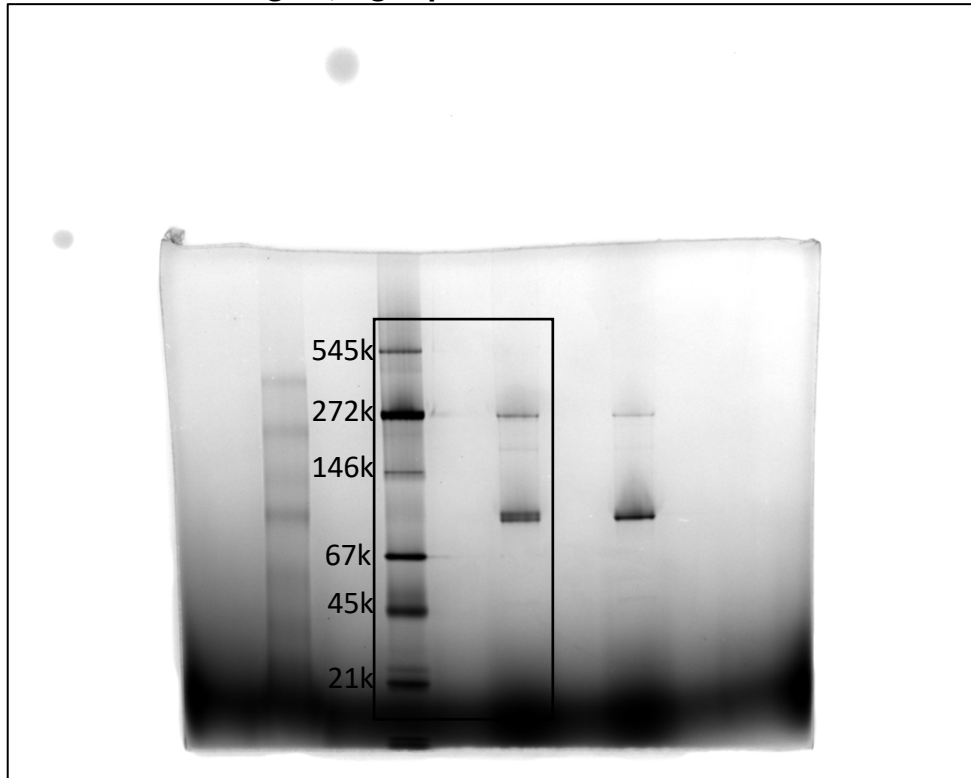
**Extended Data Fig 7d, bottom panel, CELA3B (separate membrane)**



**Extended Data Fig 7e, left panel**

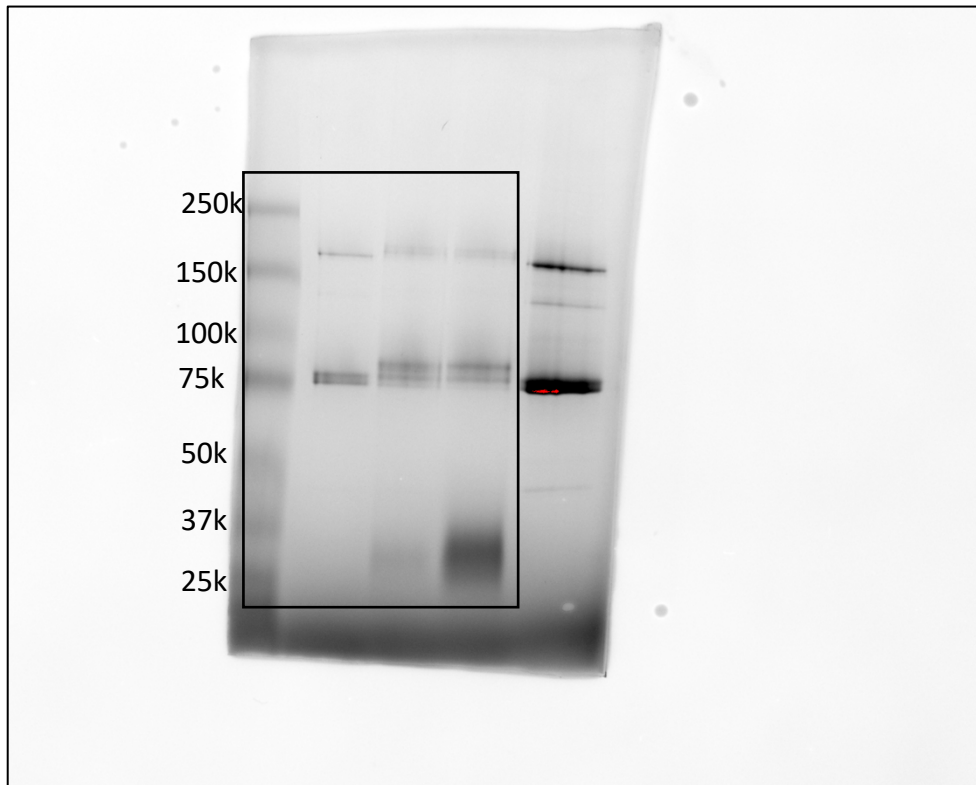


**Extended Data Fig 7e, right panel**



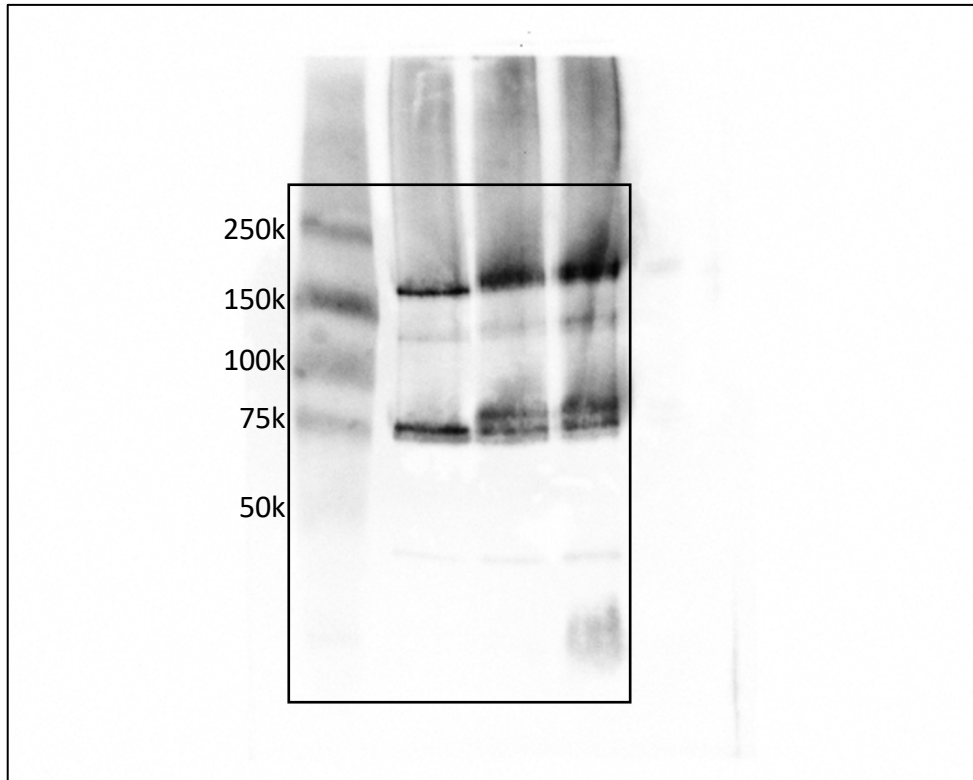
### **Extended Data Fig 7f, Left panel**

**Note:** The marker used here is designed for SDS-PAGE-based chemiluminescent Western blot and does not reflect the actual molecular weight on a Native PAGE gel. It was used only for the purpose of aligning the individual bands between the gel and the blots.



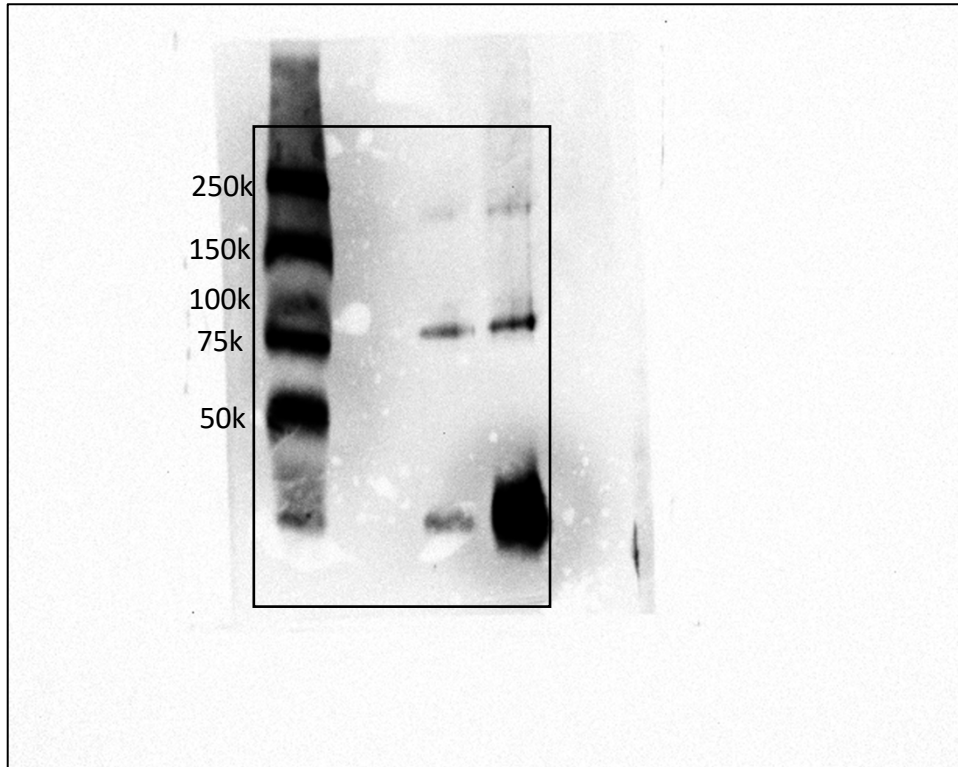
**Extended Data Fig 7f, middle panel**

**Note:** The marker used here is designed for SDS-PAGE-based chemiluminescent Western blot and does not reflect the actual molecular weight on a Native PAGE gel. It was used only for the purpose of aligning the individual bands between the gel and the blots.



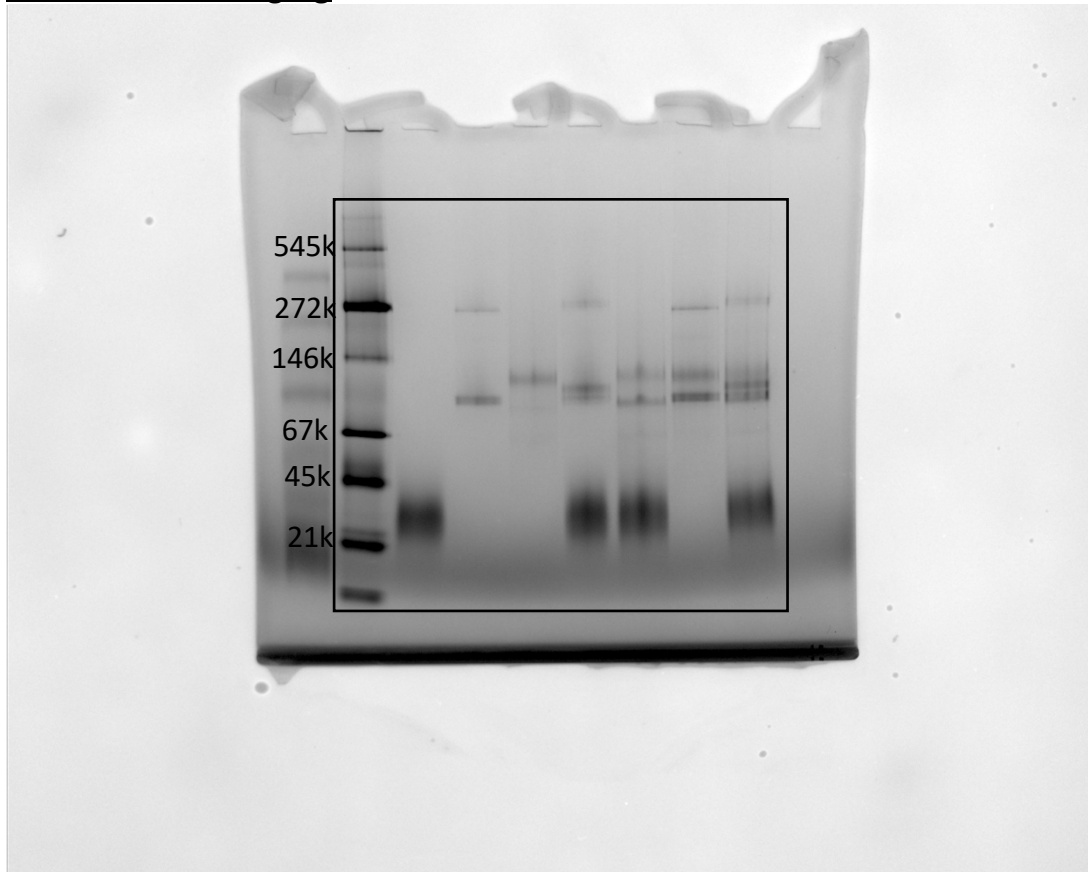
**Extended Data Fig 7f, right panel**

**Note:** The marker used here is designed for SDS-PAGE-based chemiluminescent Western blot and does not reflect the actual molecular weight on a Native PAGE gel. It was used only for the purpose of aligning the individual bands between the gel and the blots.

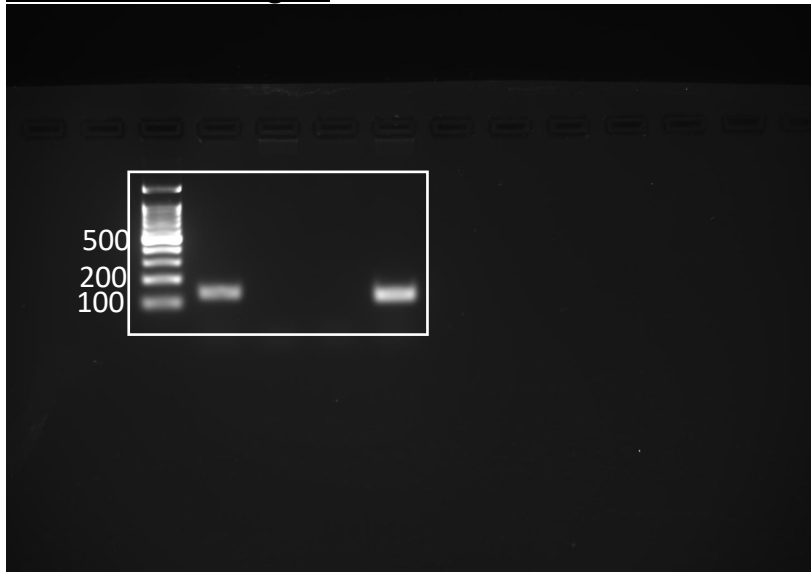




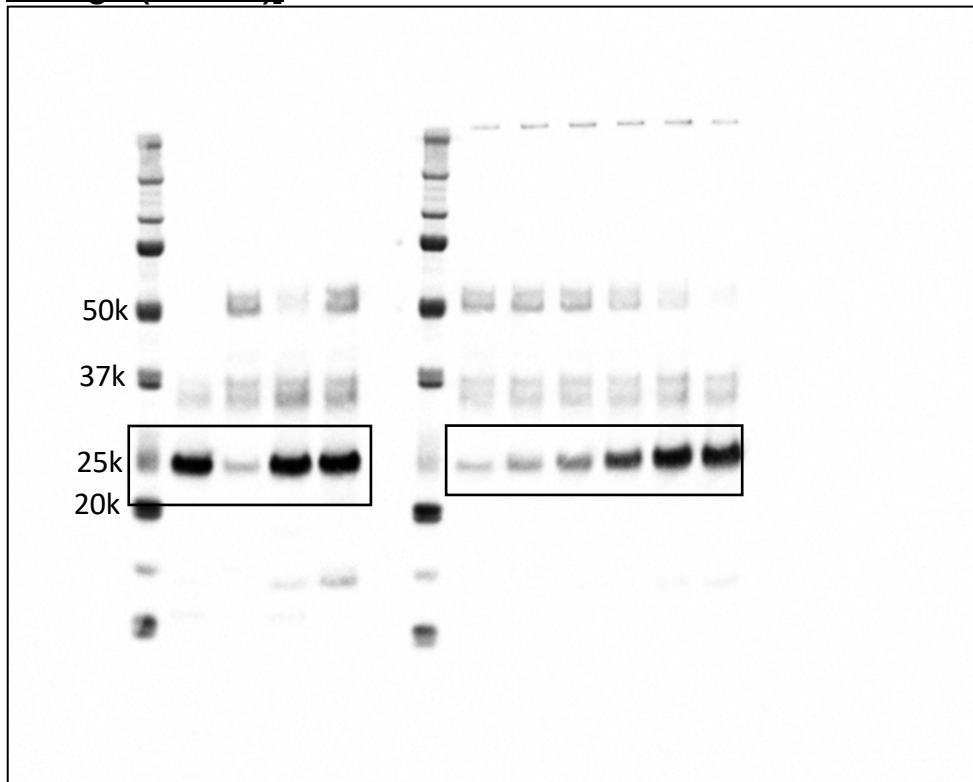
**Extended Data Fig 7g**



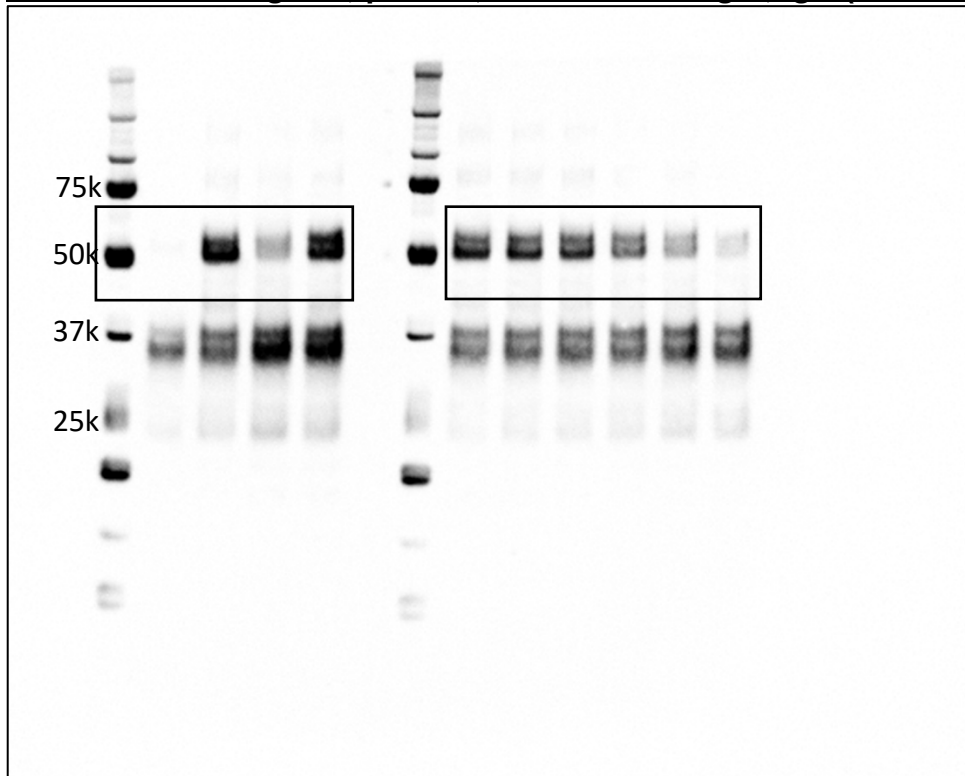
**Extended Data Fig 9e**



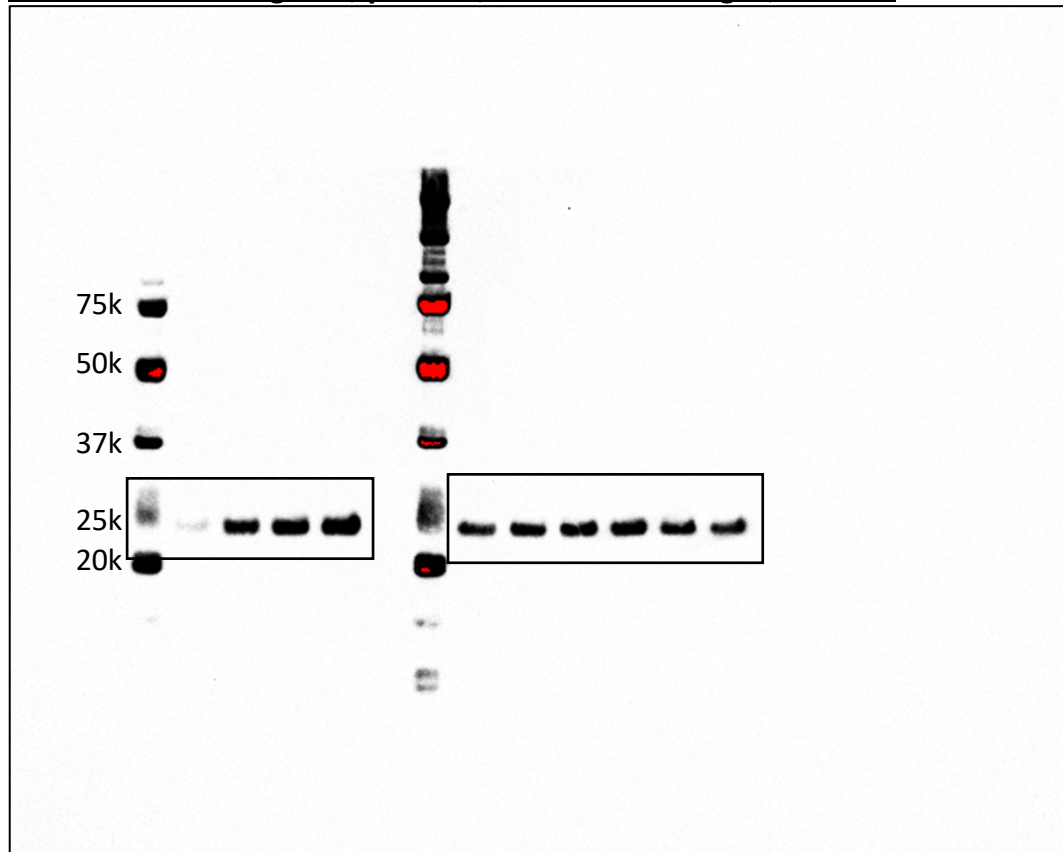
**Extended Data Fig 10a, panel 1, both left and right, PRSS2 [same membrane with IgA ( $\alpha$  chain)]**



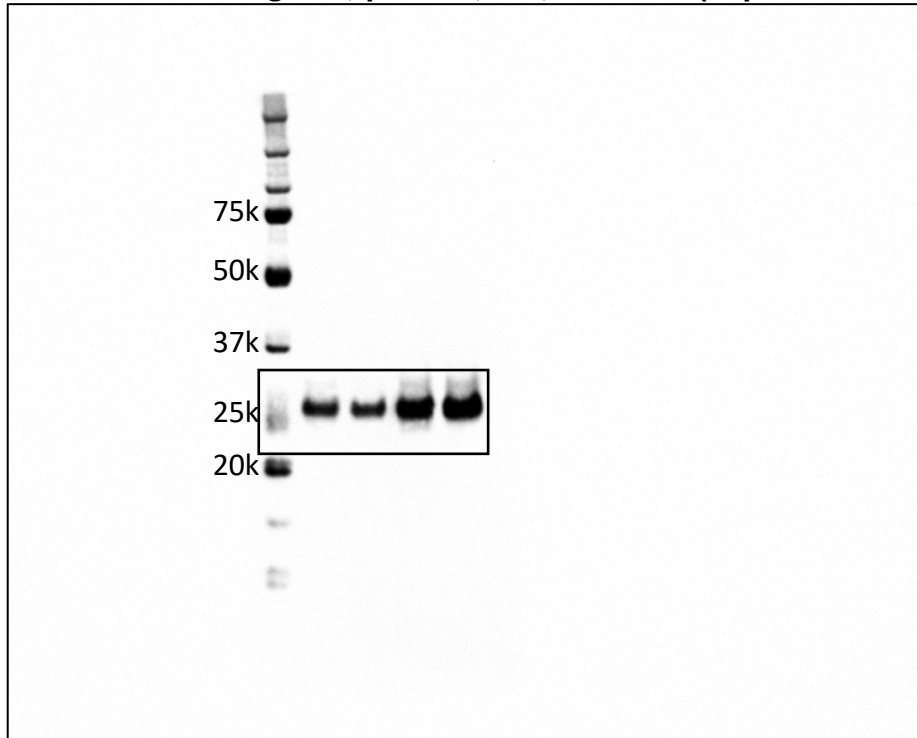
Extended Data Fig 10a, panel 2, both left and right, IgA ( $\alpha$  chain)



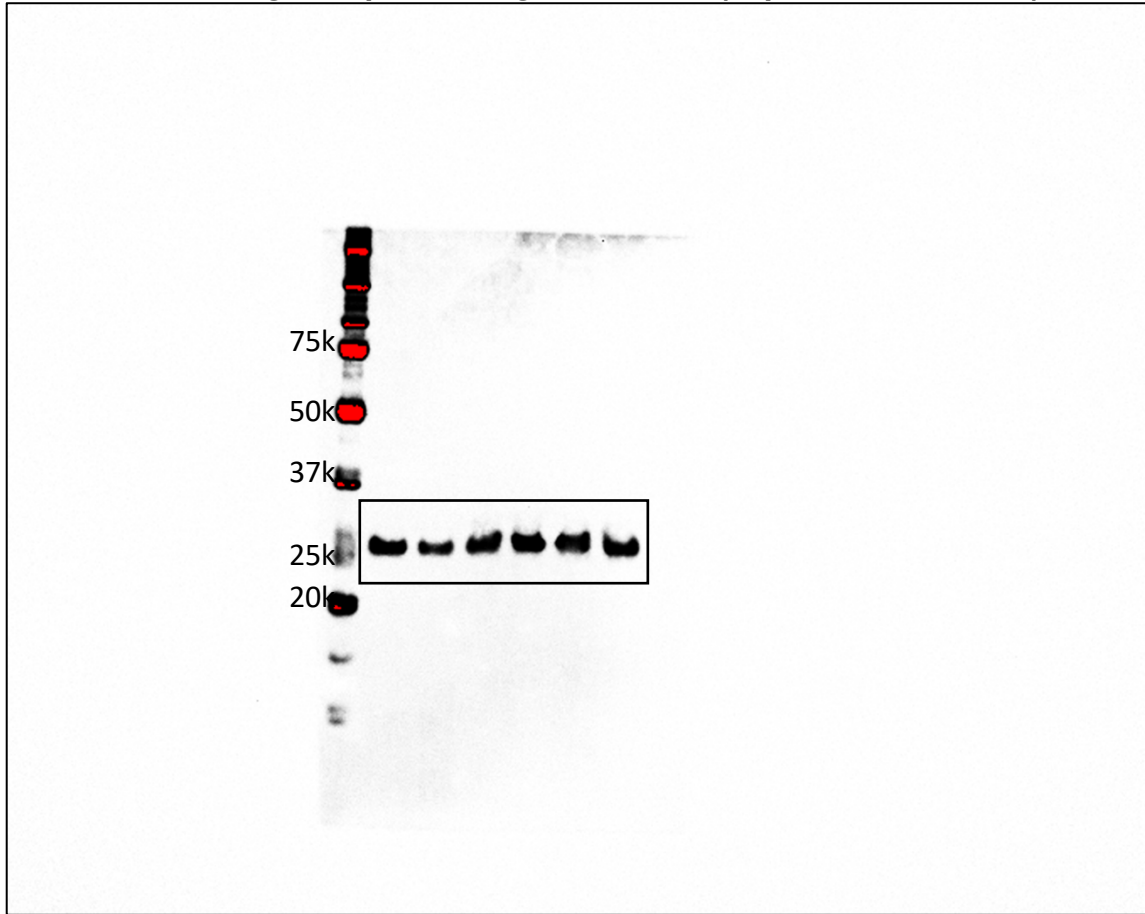
**Extended Data Fig 10a, panel 3, both left and right,  $\kappa$  chain**



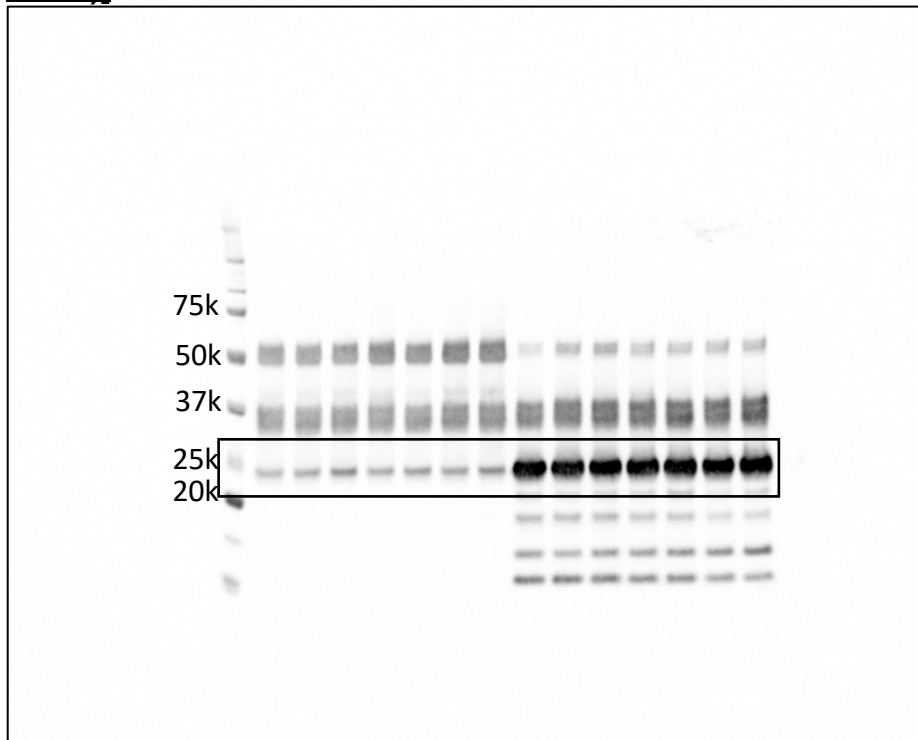
**Extended Data Fig 10a, panel 4, left, CELA3B (separate membrane)**



**Extended Data Fig 10a, panel 4, right, CELA3B (separate membrane)**

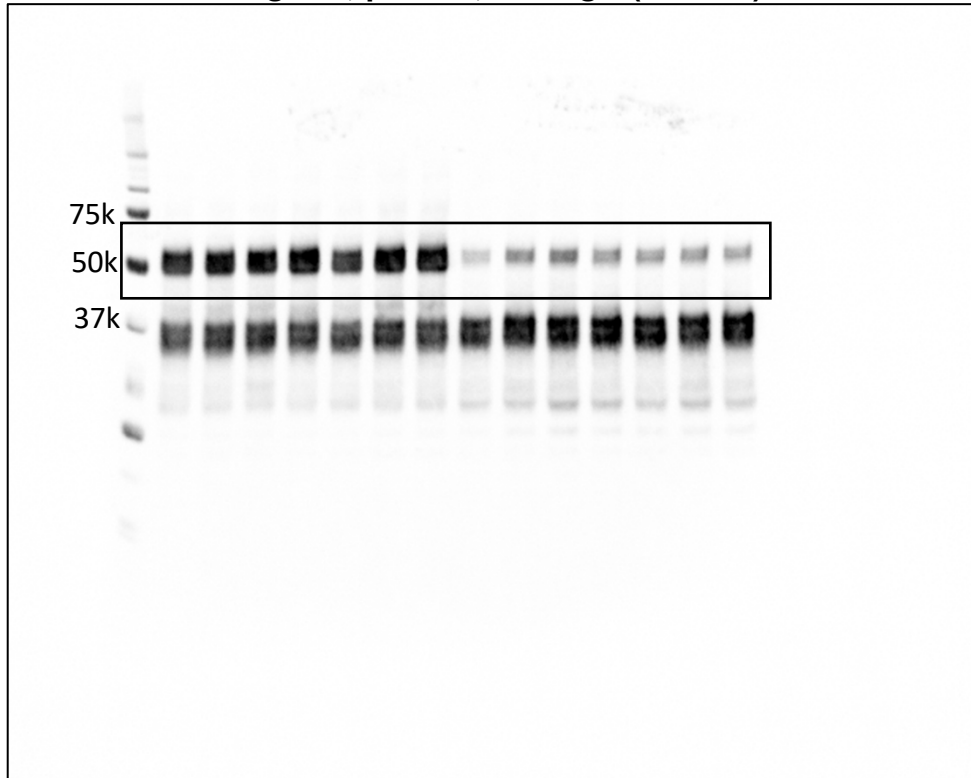


**Extended Data Fig 10e, panel 1, PRSS2 [same membrane with total IgA ( $\alpha$  chain)]**

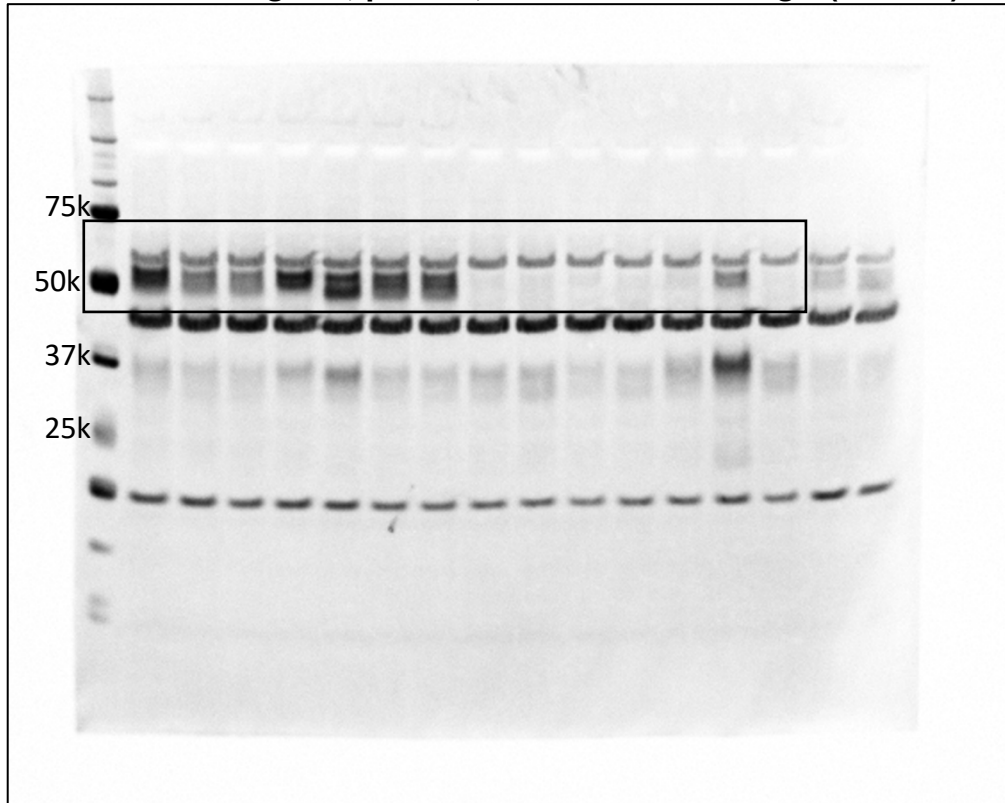




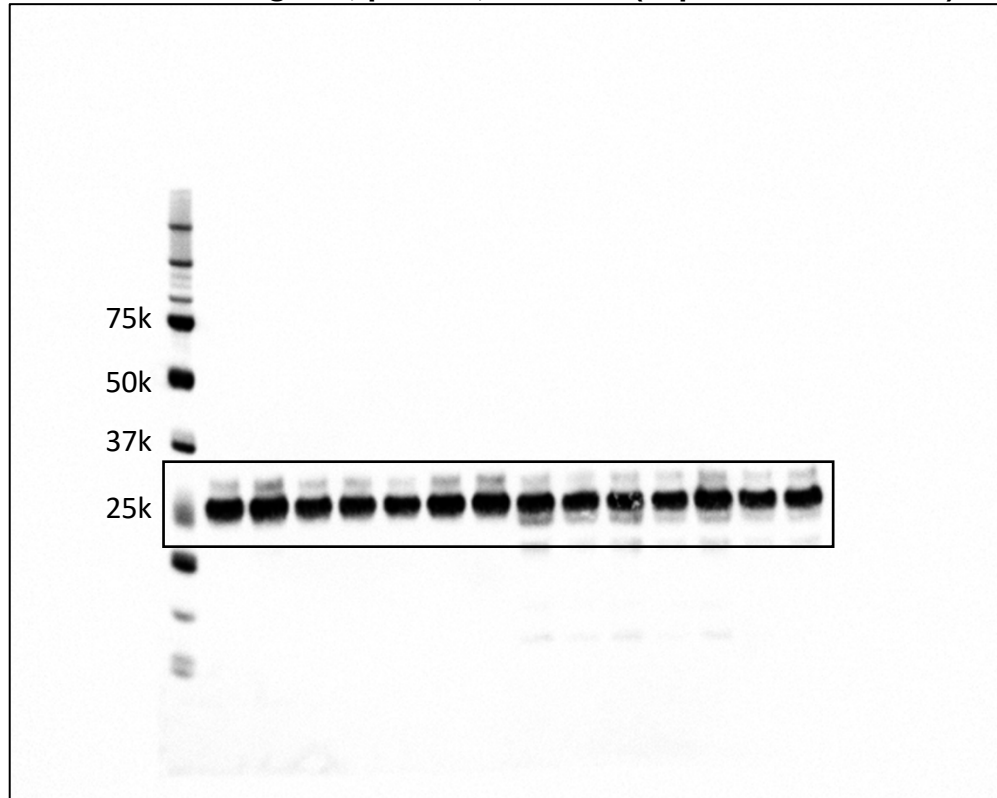
**Extended Data Fig 10e, panel 2, total IgA ( $\alpha$  chain)**



Extended Data Fig 10e, panel 3, anti-*C. rodentium* IgA ( $\alpha$  chain)



Extended Data Fig 10e, panel 4, CELA3B (separate membrane)



**Extended data Fig 12a, rmPRSS2**

