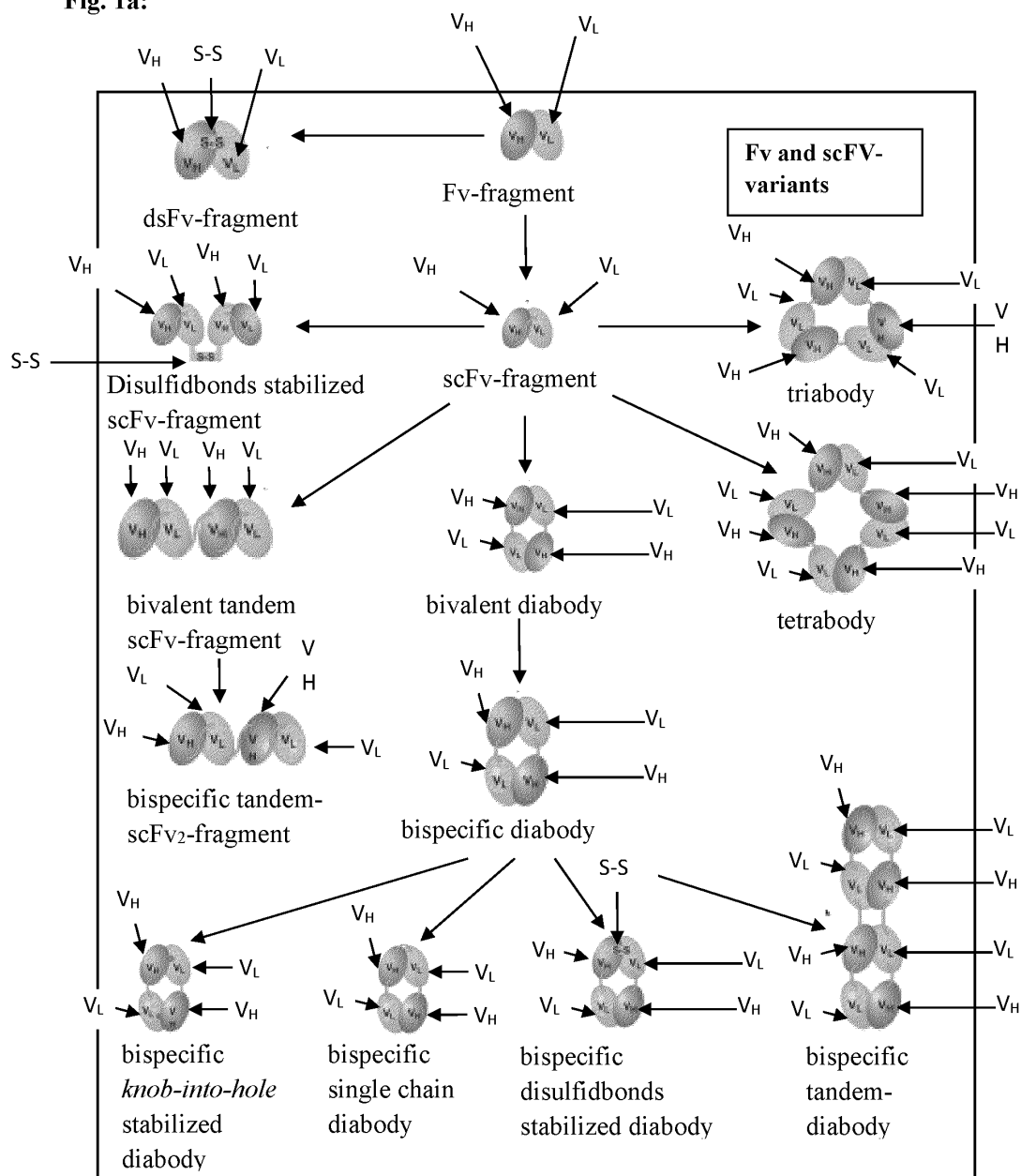


FIGURES

Fig. 1a:



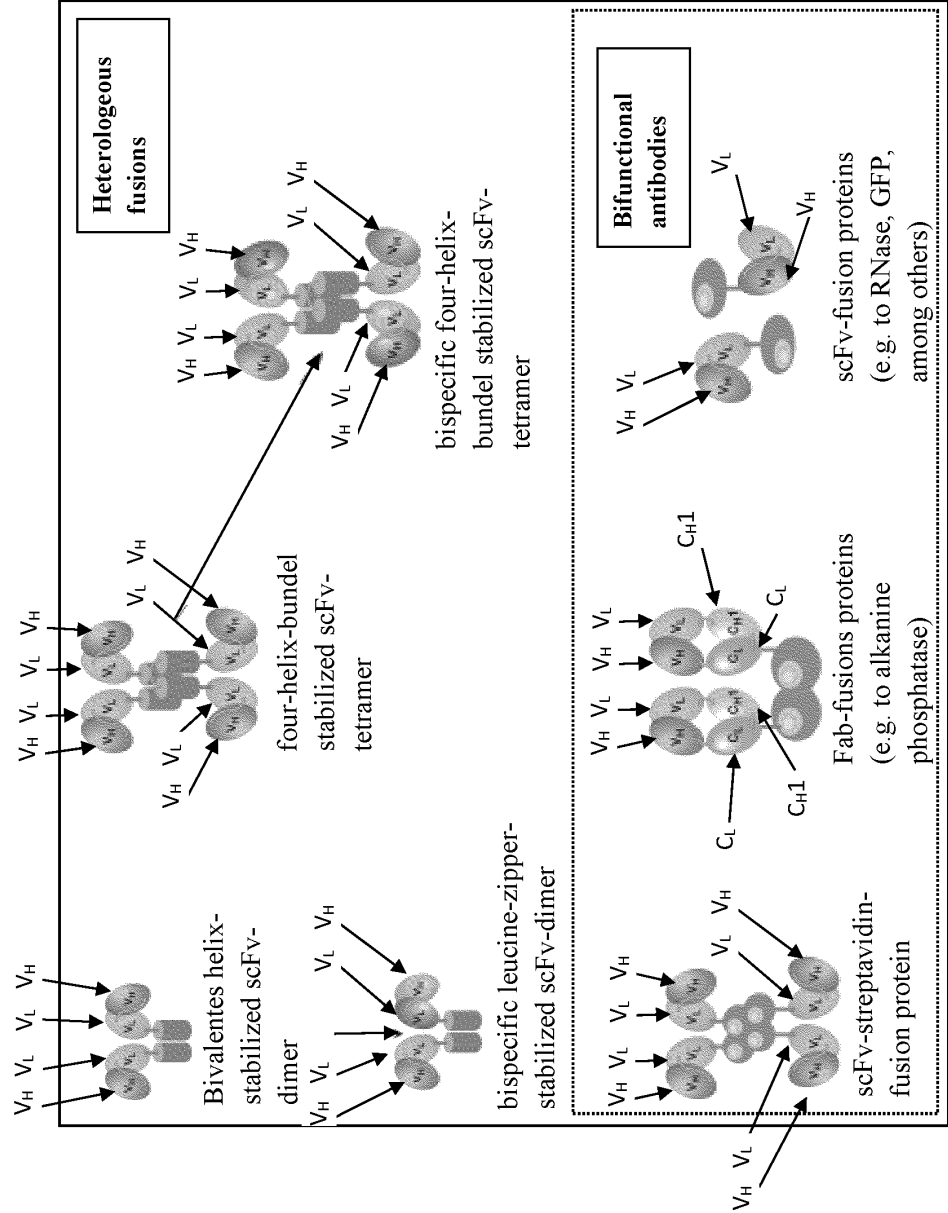


Fig. 1b:

Fig. 1c:

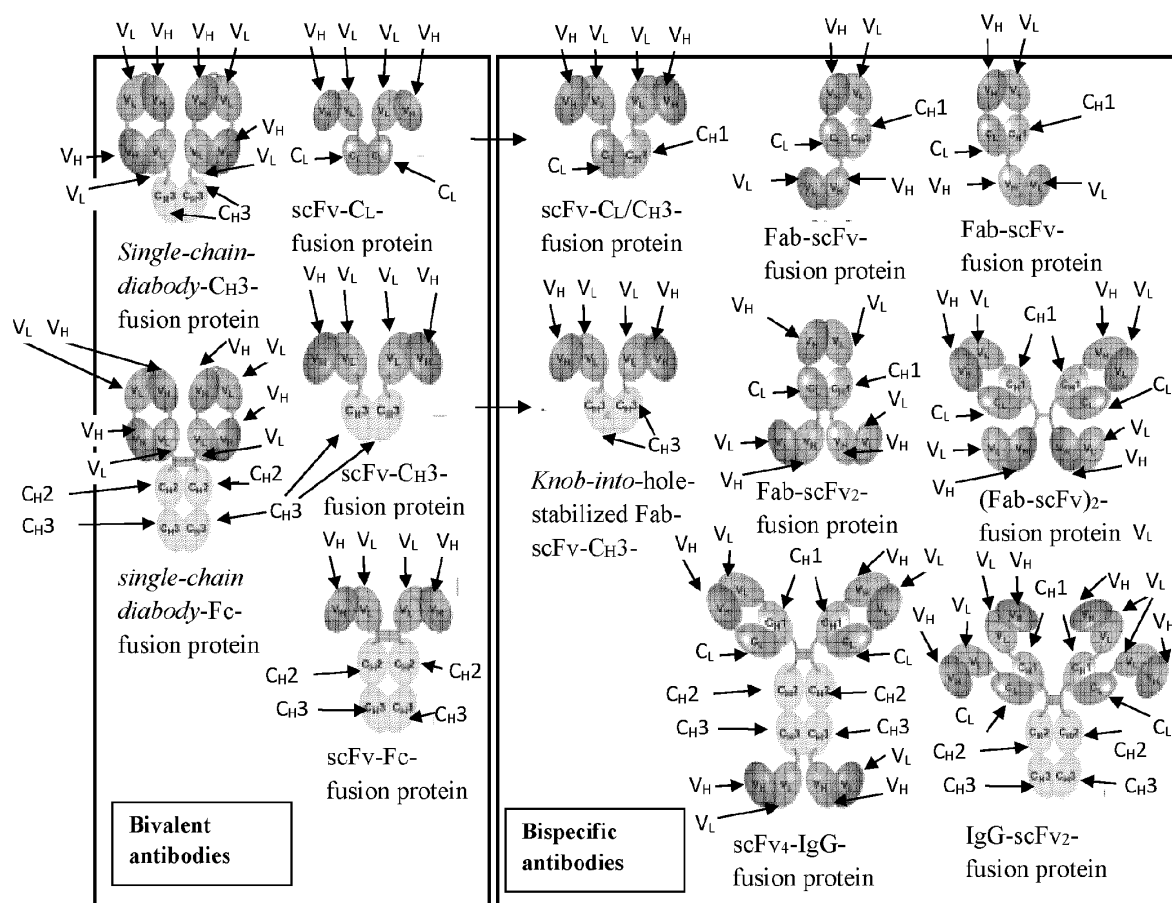


Fig. 2 a:

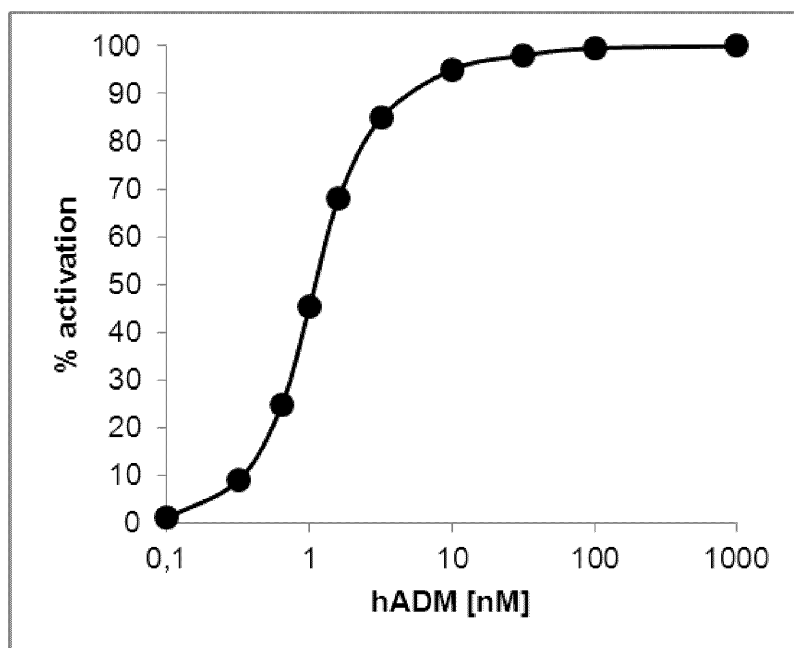


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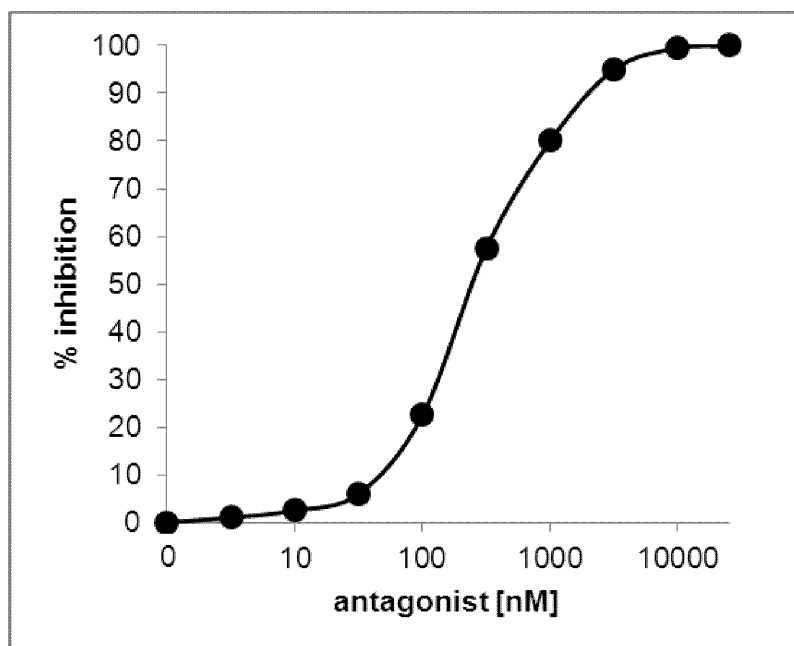


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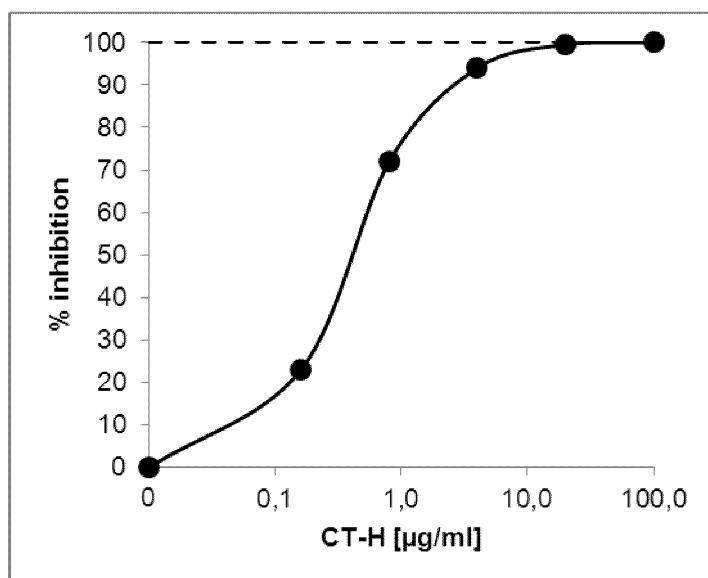


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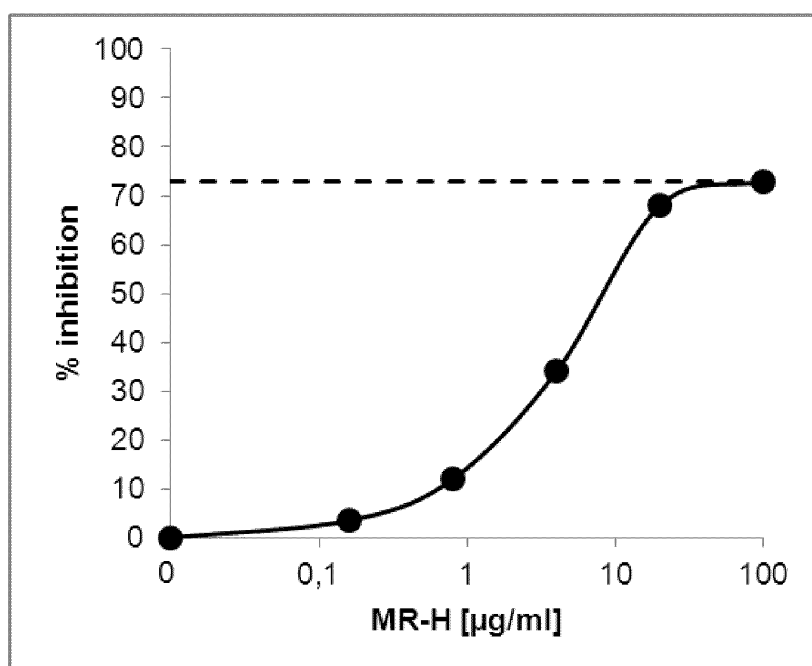


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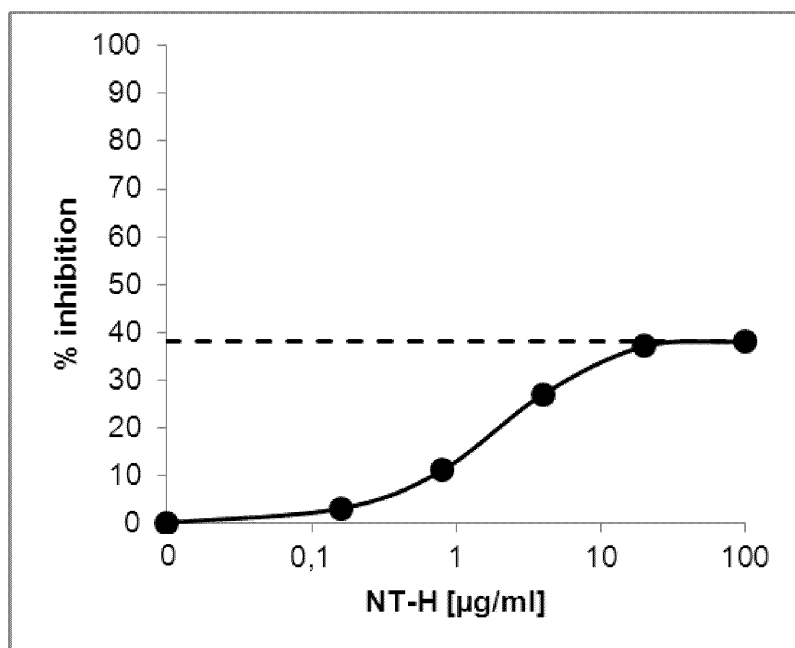


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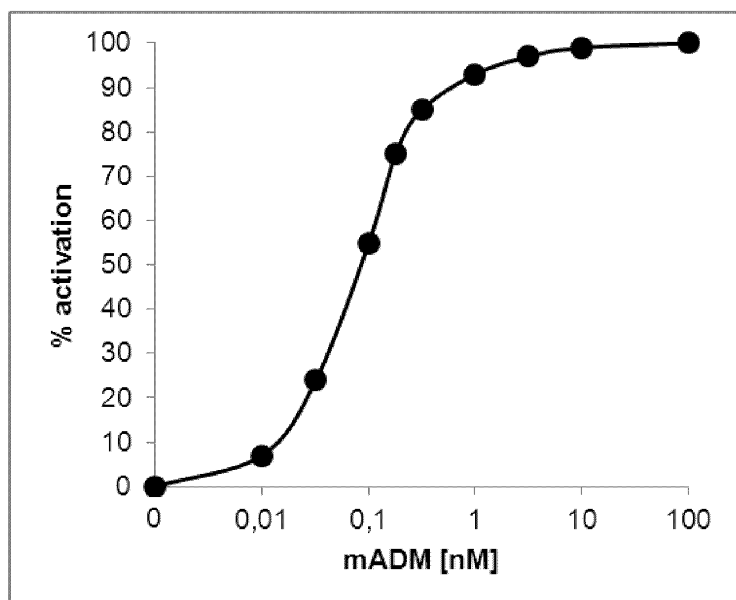


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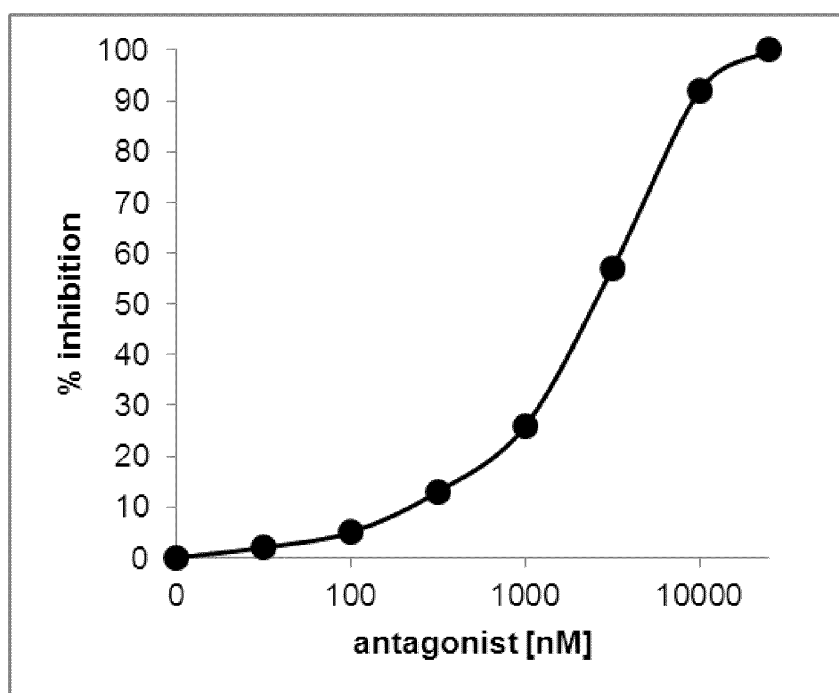


Fig. 2 h:

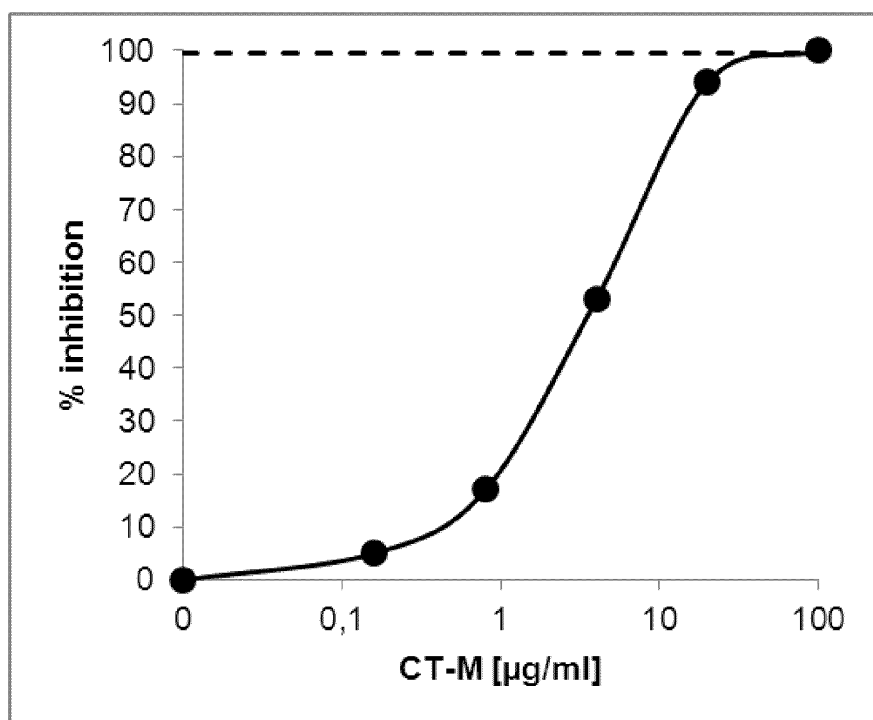


Fig. 2 i:

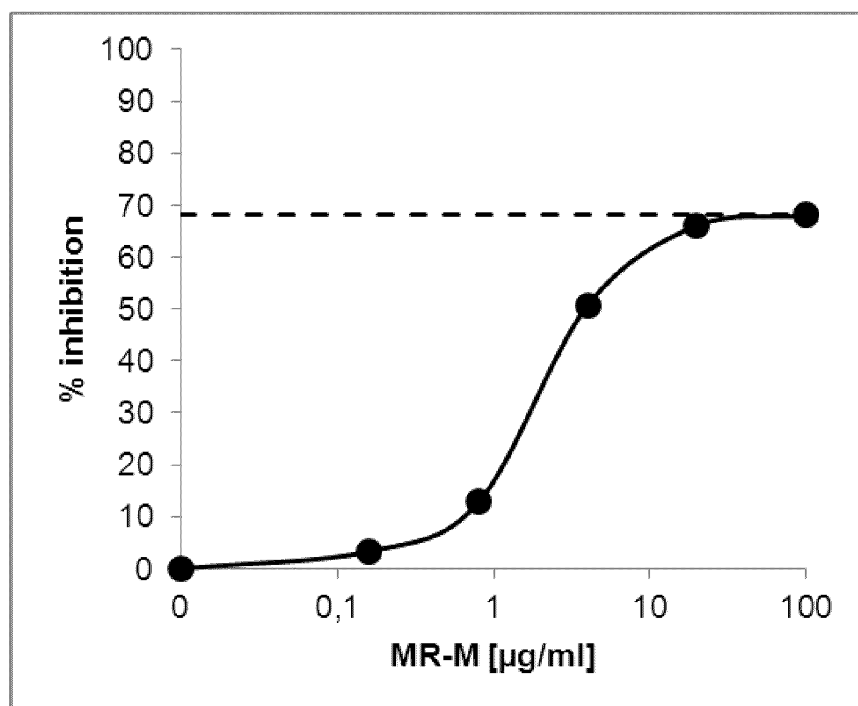


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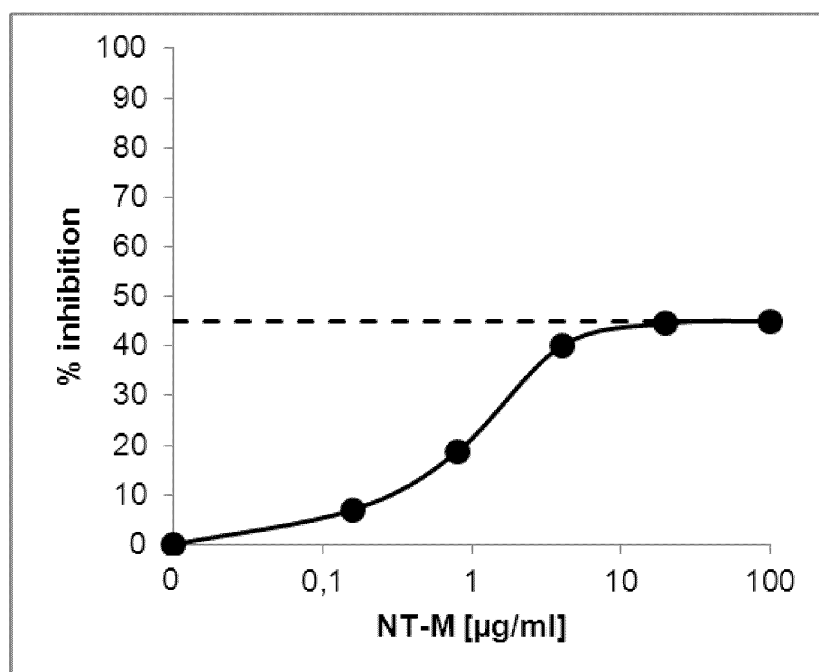


Fig. 2 k:

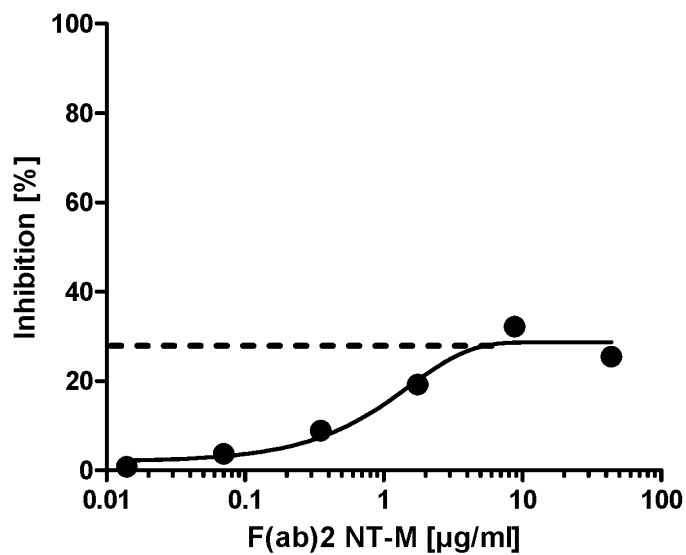


Fig. 2 l:

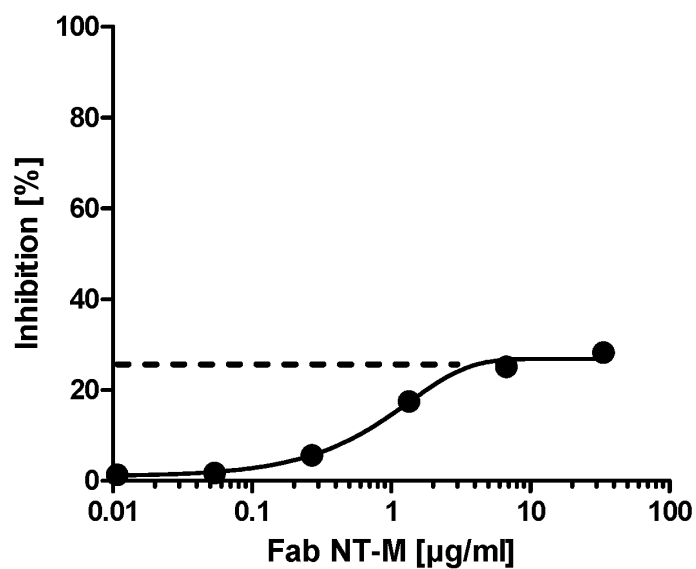


Fig. 3:

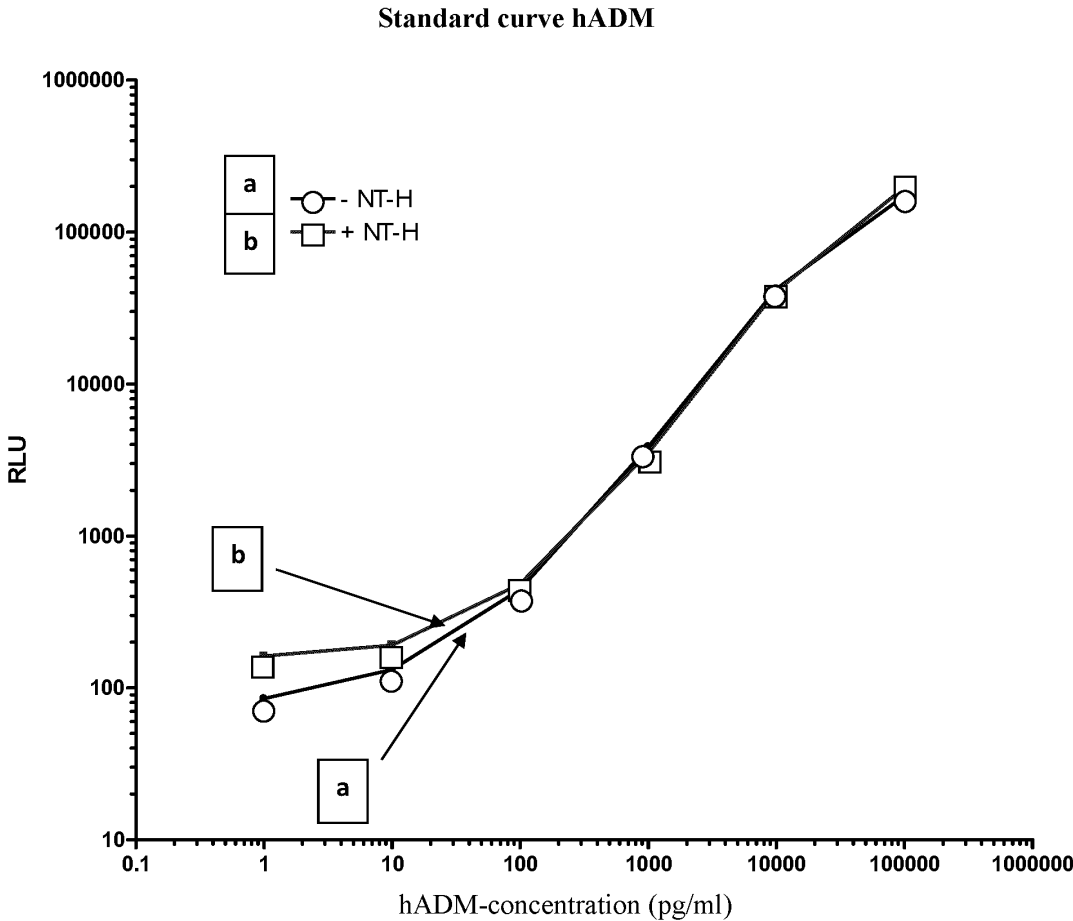


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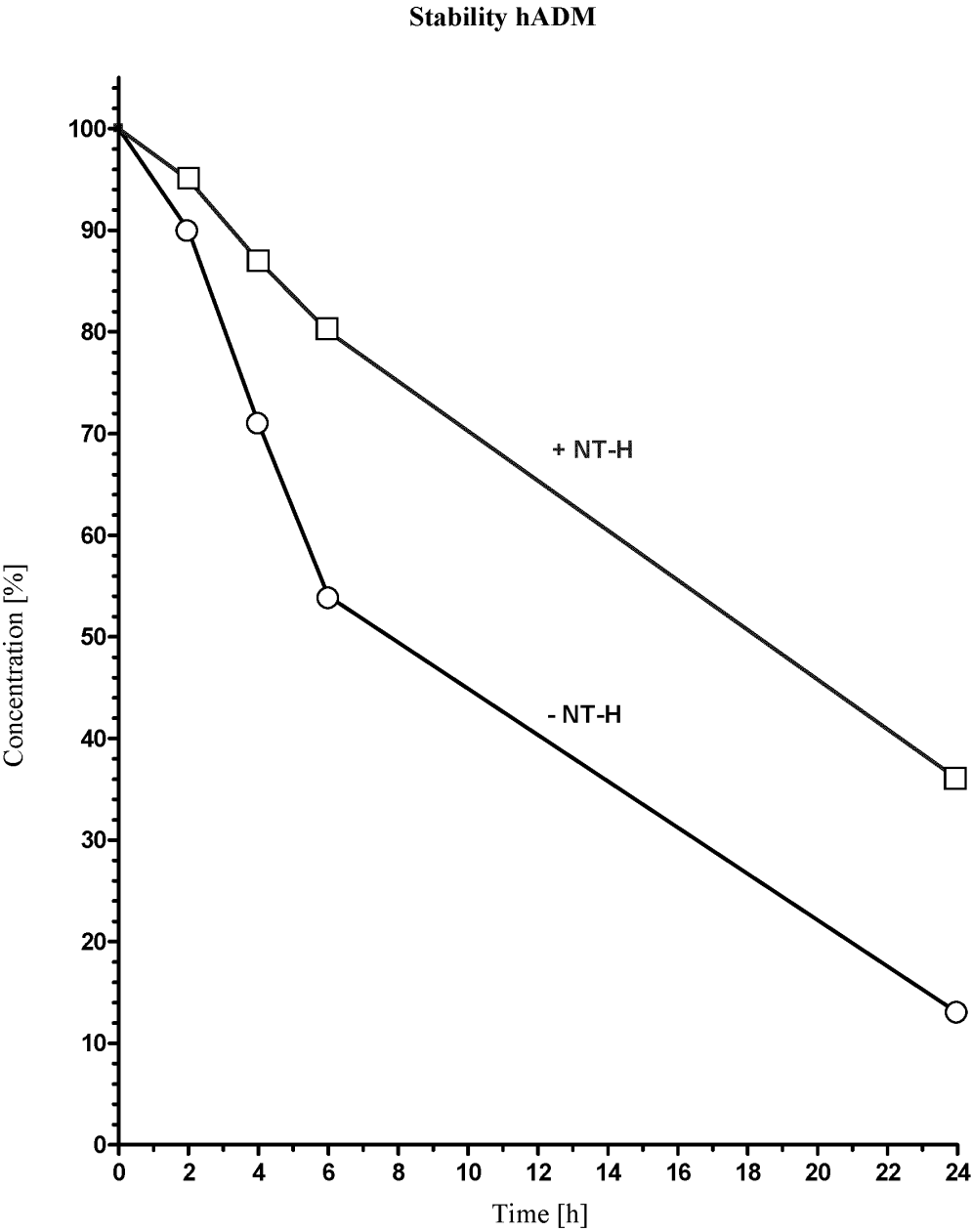


Fig 5:

Alignment (ClustalW2): Identical amino acids are illustrated by stars; points indicate conservative changes.

```
IGHV1:QVQLVQSGAEVKKPGSSVKVSCKASGGTFSSYAISWVRQAPGQGLEWMGRIIPILGTANYAQKFQGR
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HB3:  QVQLQQSGAELMKPGASVKISCKATGYTFSRYWIEWVKQRPGHGLEWIGEILPGSGSTNYNEKFKGK
      ATITADTSSNTAYMQLSSLTSEDSAVYYCTEGYEYDGFQDWGQGTTTLTVSS
      ****  *****: ***:***:***:* *** * *.**:* **:*****:*.**:* *:*** :***:*
      .***** *: .*****:***** ***:*****: . * * *: * *****:*****
```

Fig. 6

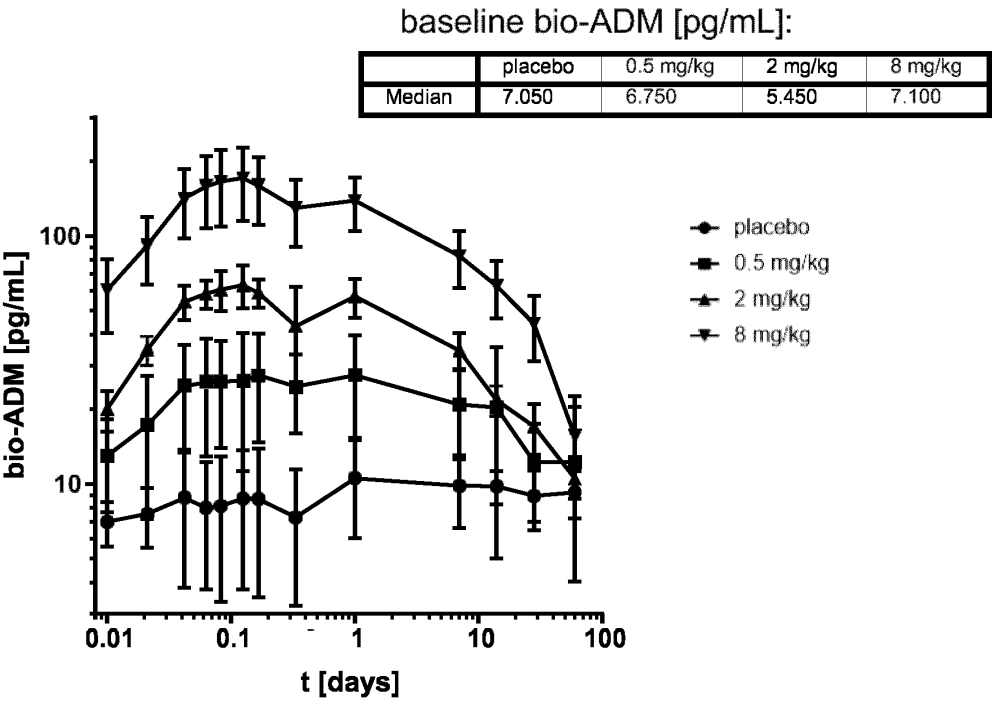


Fig. 7

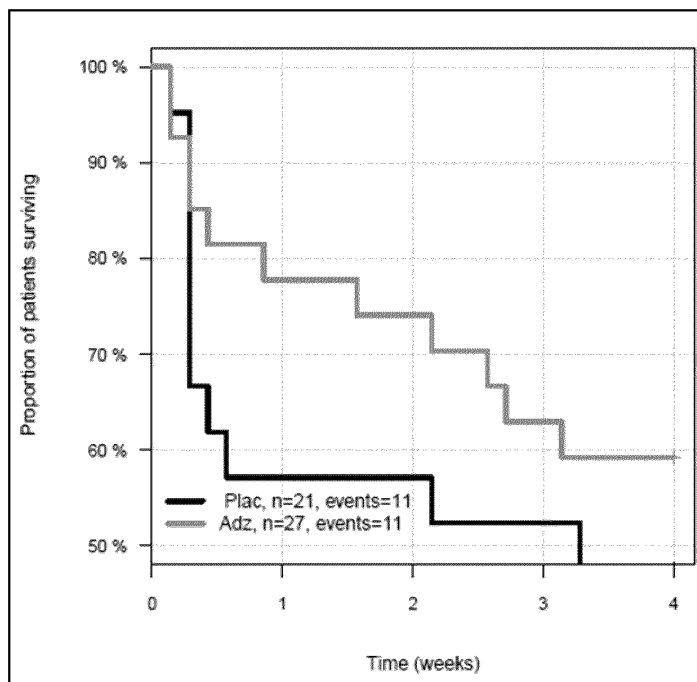


Fig. 8a

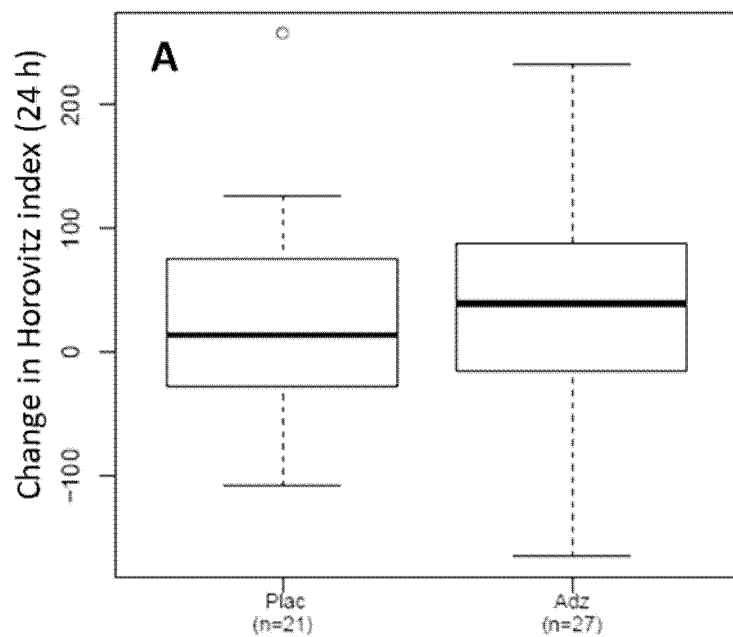
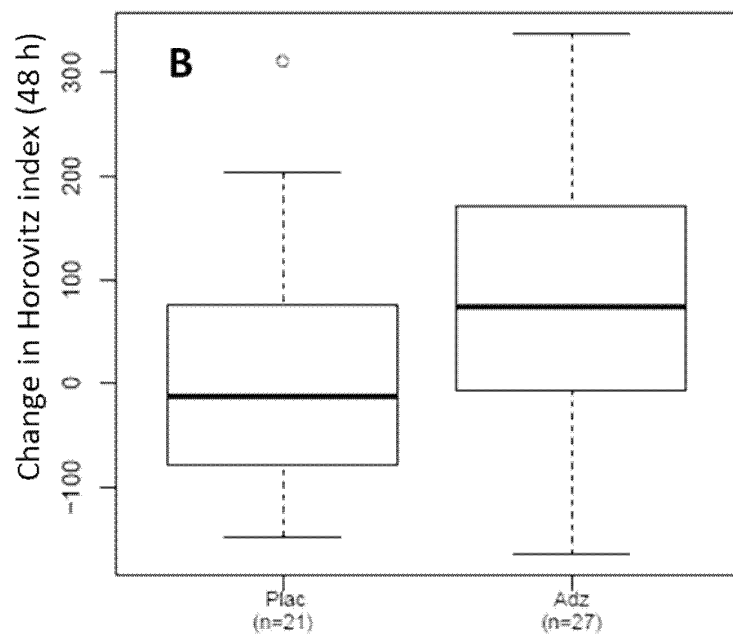


Fig. 8b



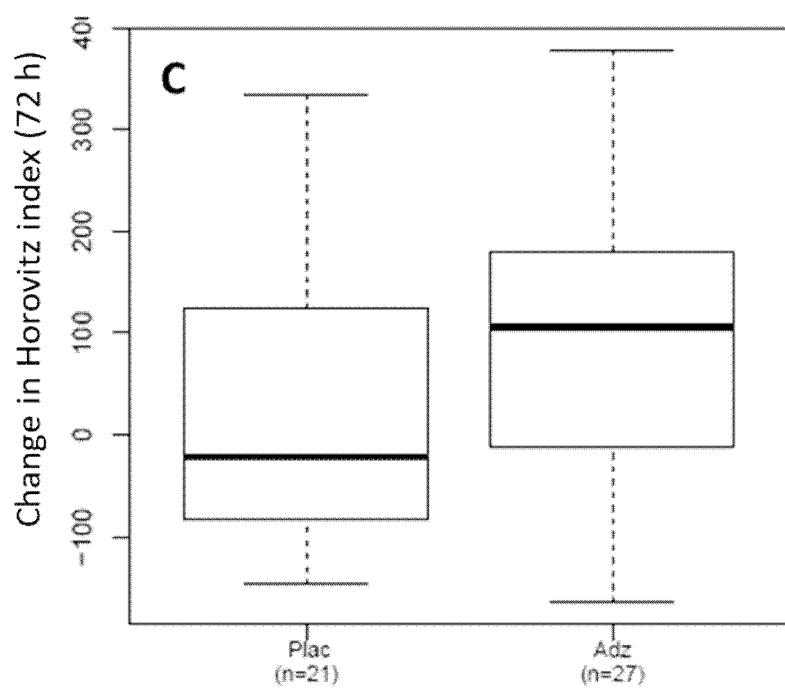


Fig. 8c

Fig. 9a

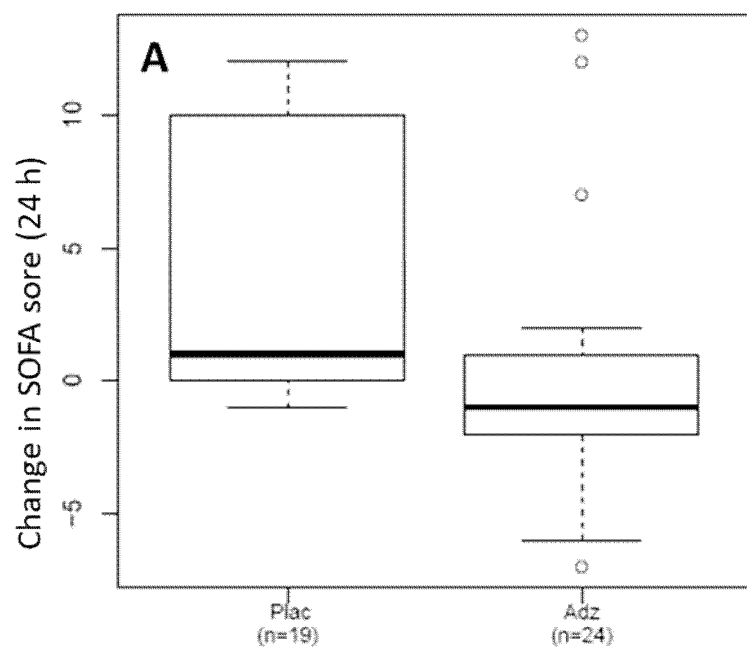
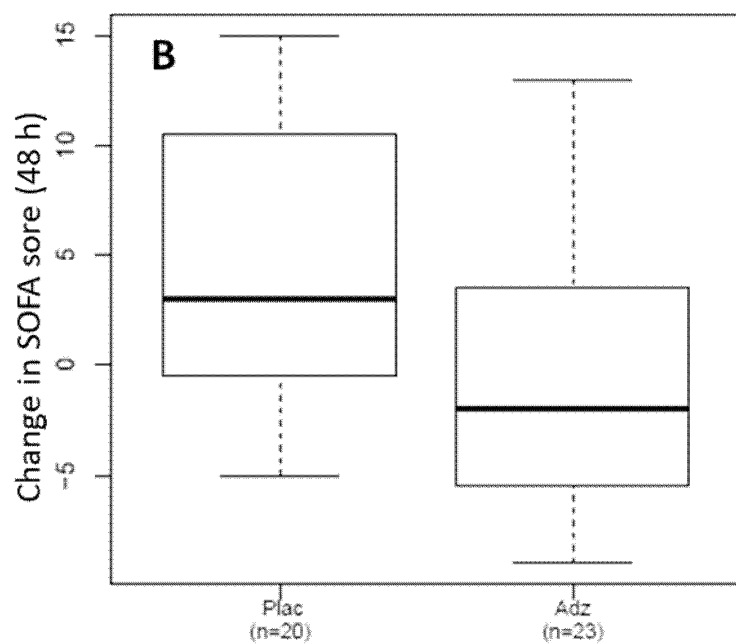


Fig. 9b



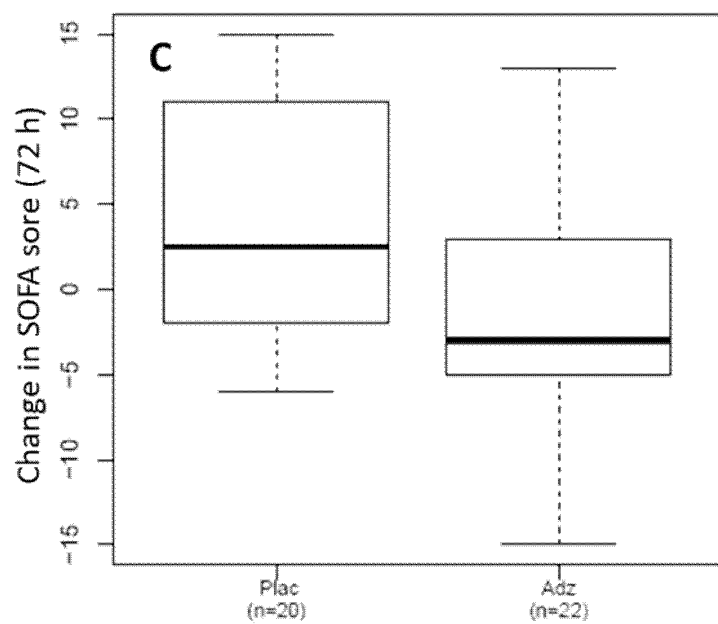


Fig. 9c

Fig. 10a

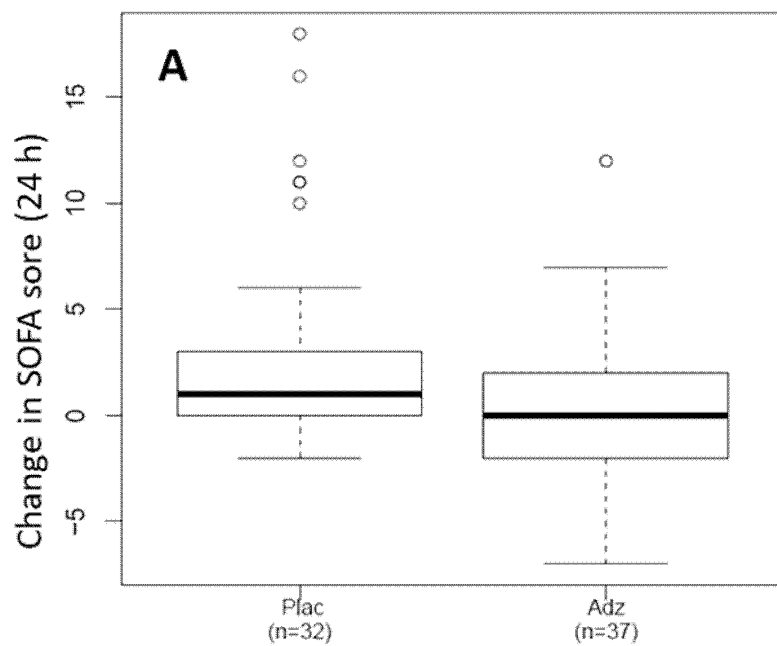
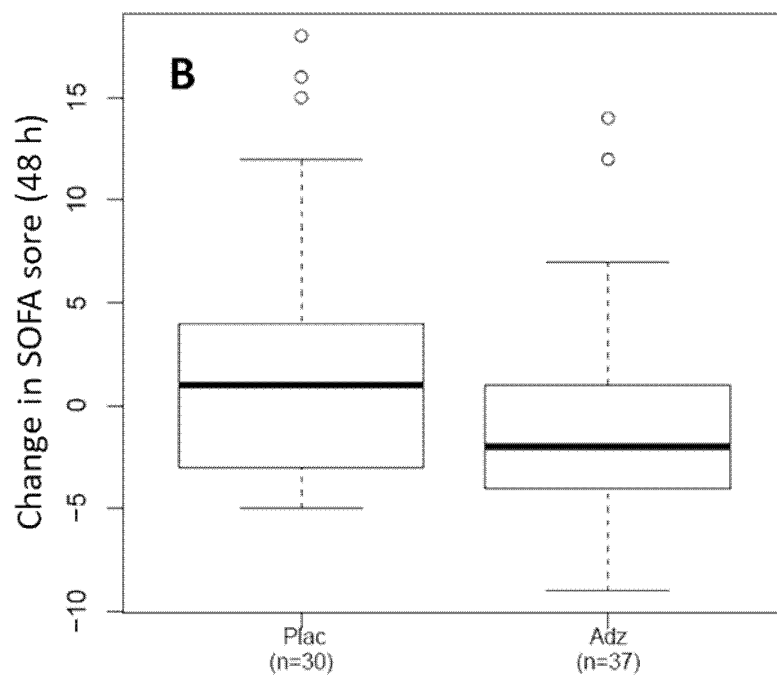


Fig. 10b



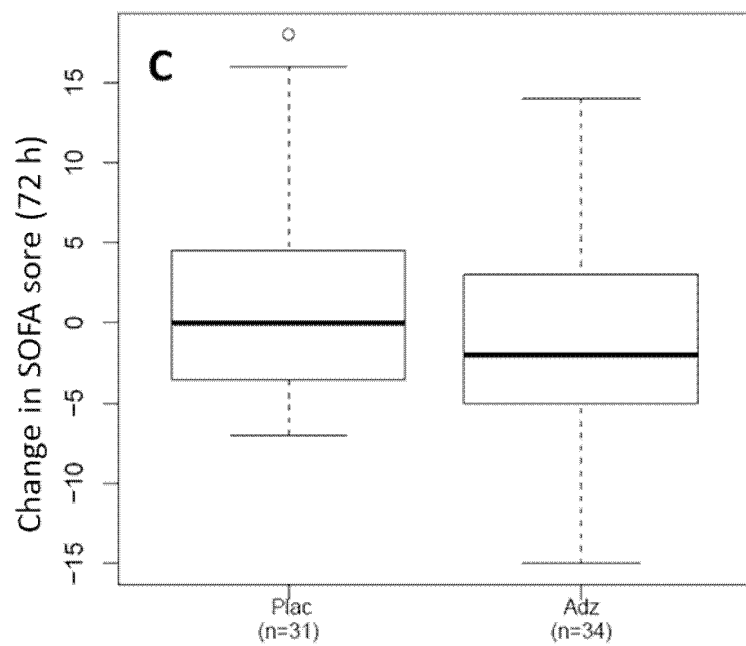


Fig. 10c

Fig. 11

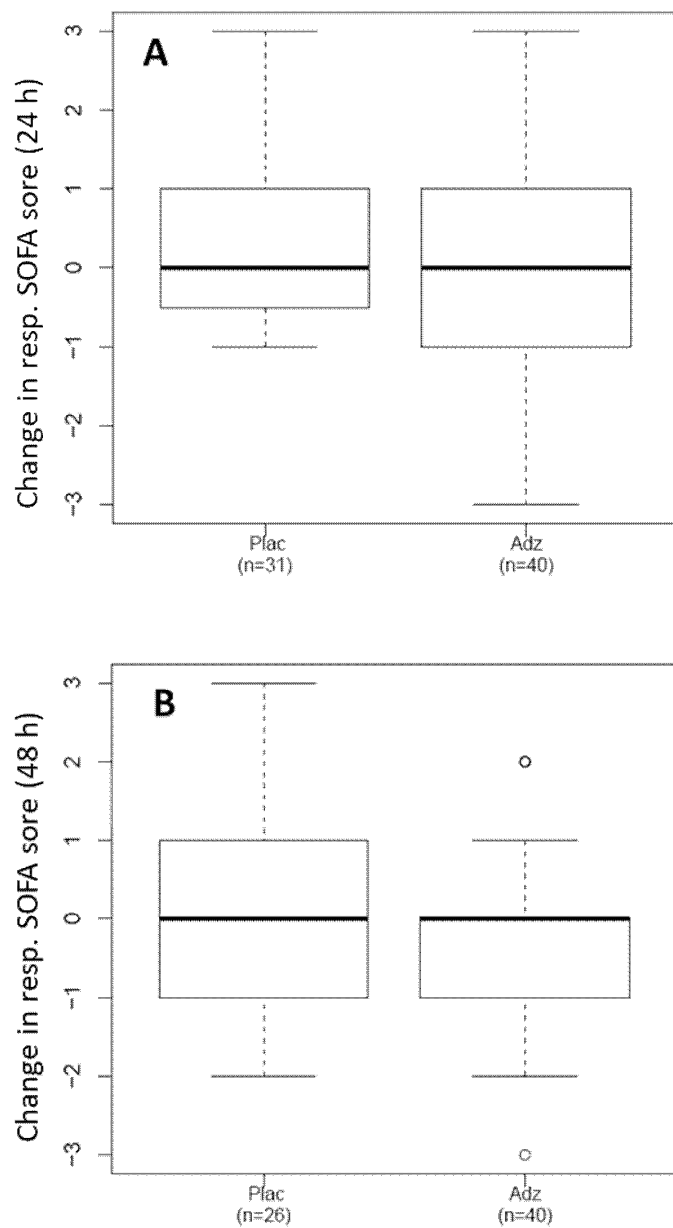


Fig. 12

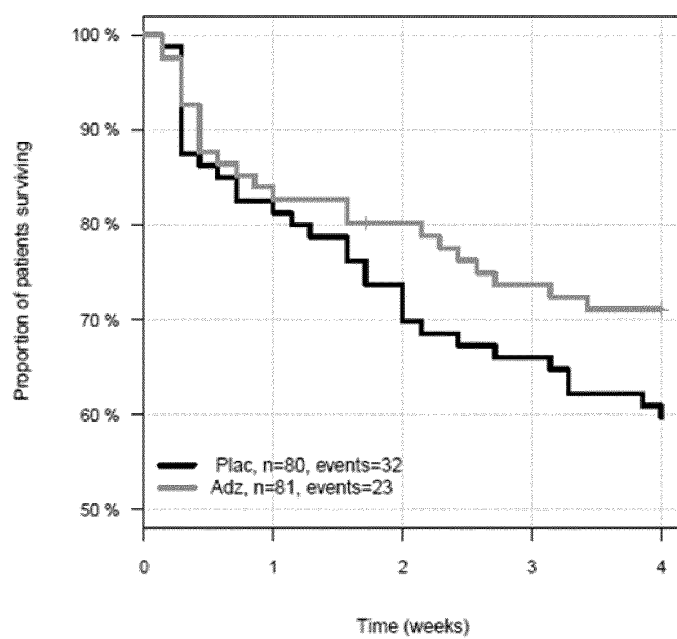


Fig. 13a

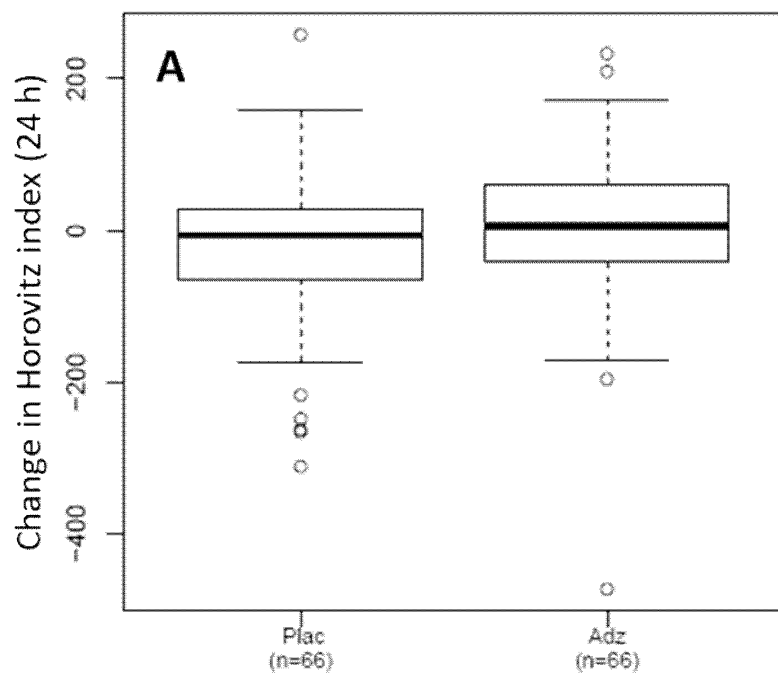
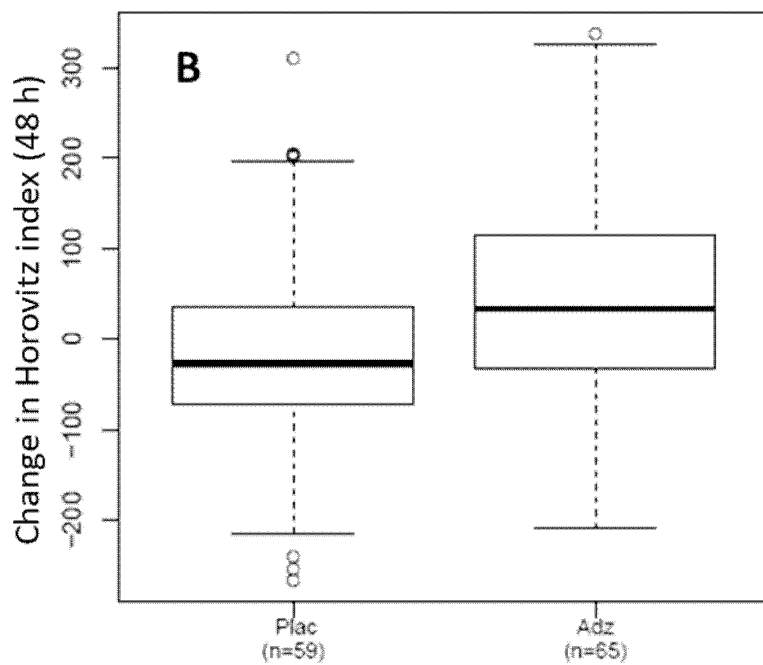


Fig. 13b



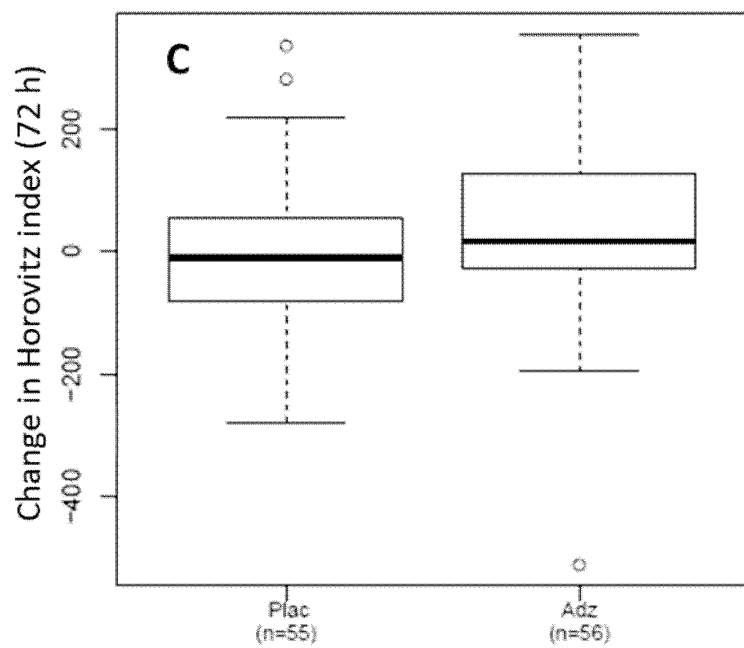


Fig. 13c

Fig. 14a

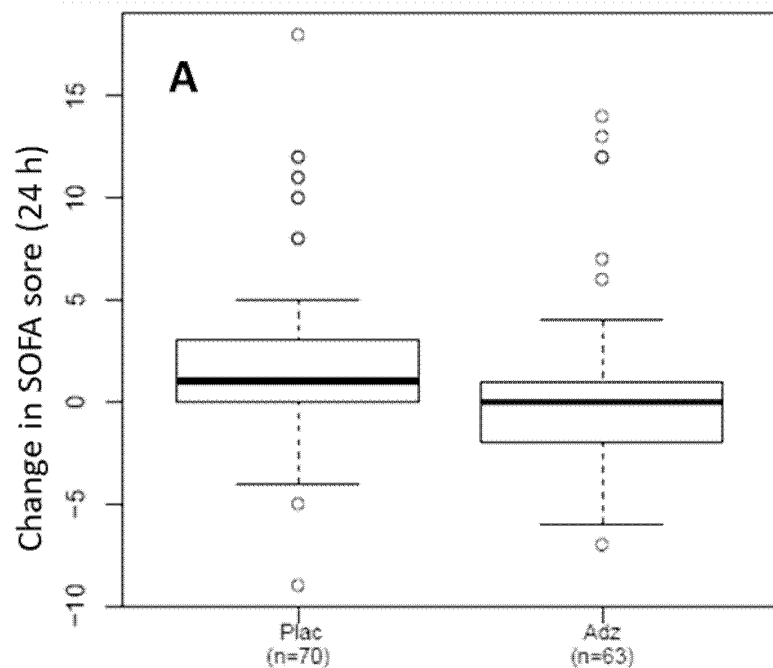
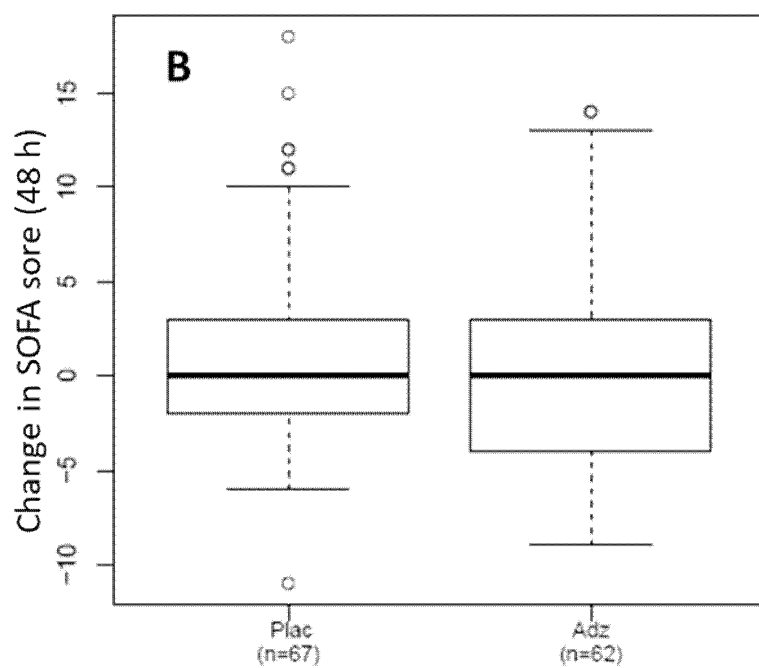


Fig. 14b



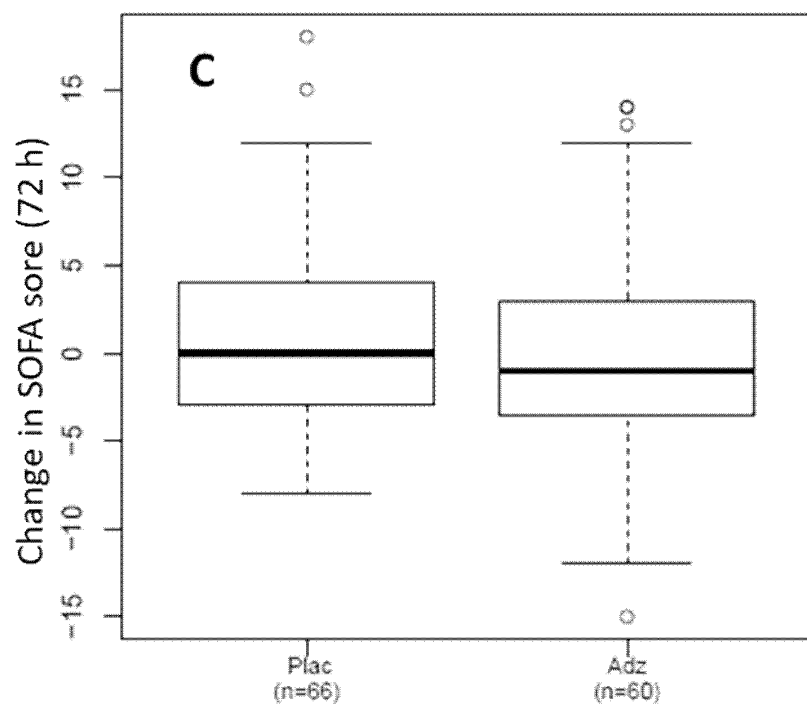


Fig. 14c

Fig. 15a

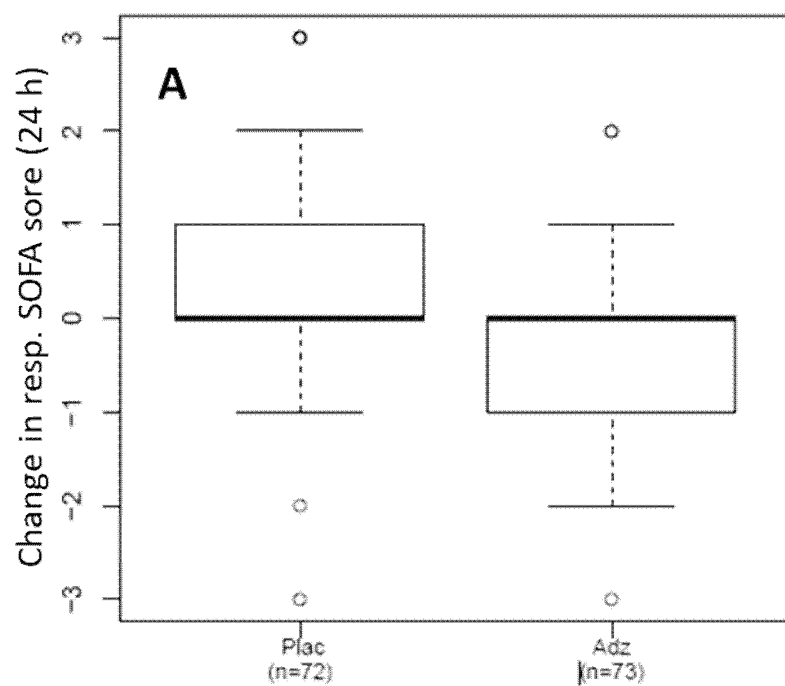
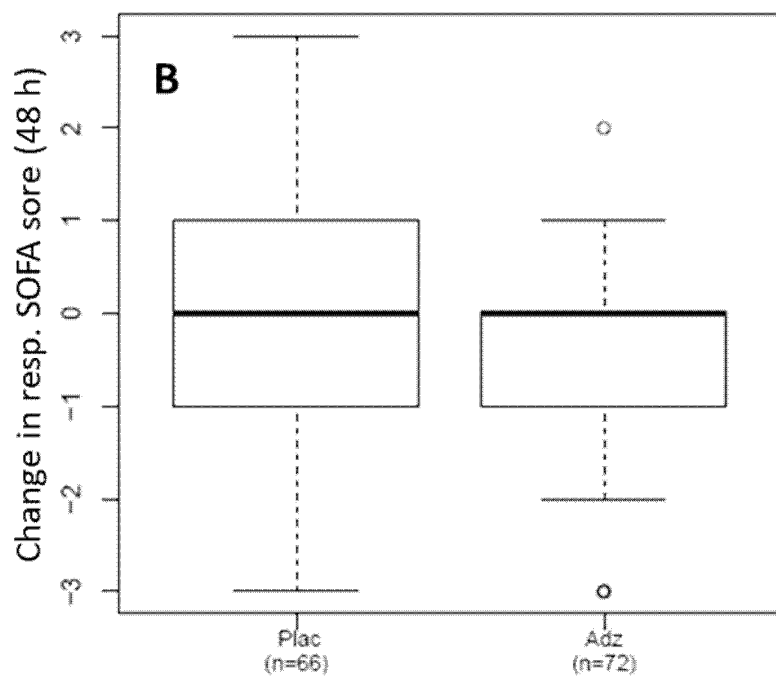


Fig. 15b



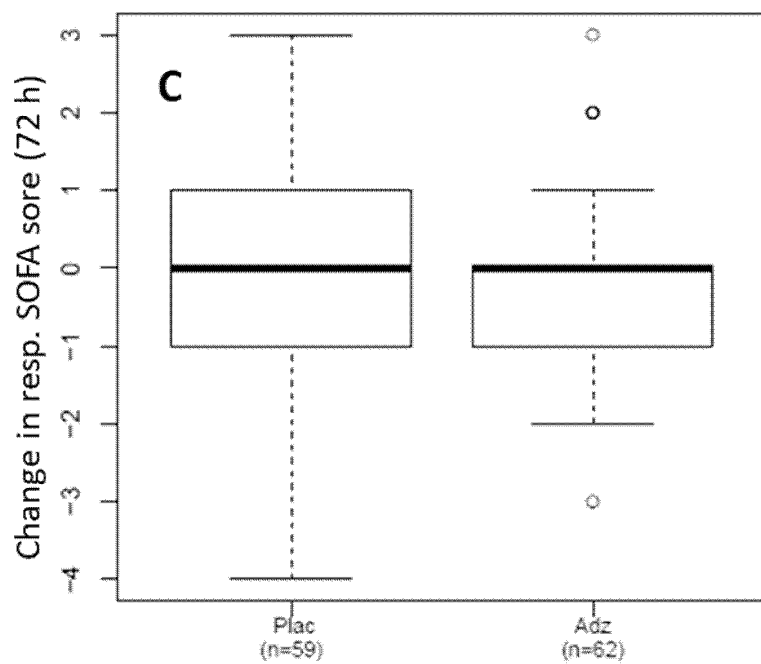


Fig. 15c

Fig. 16

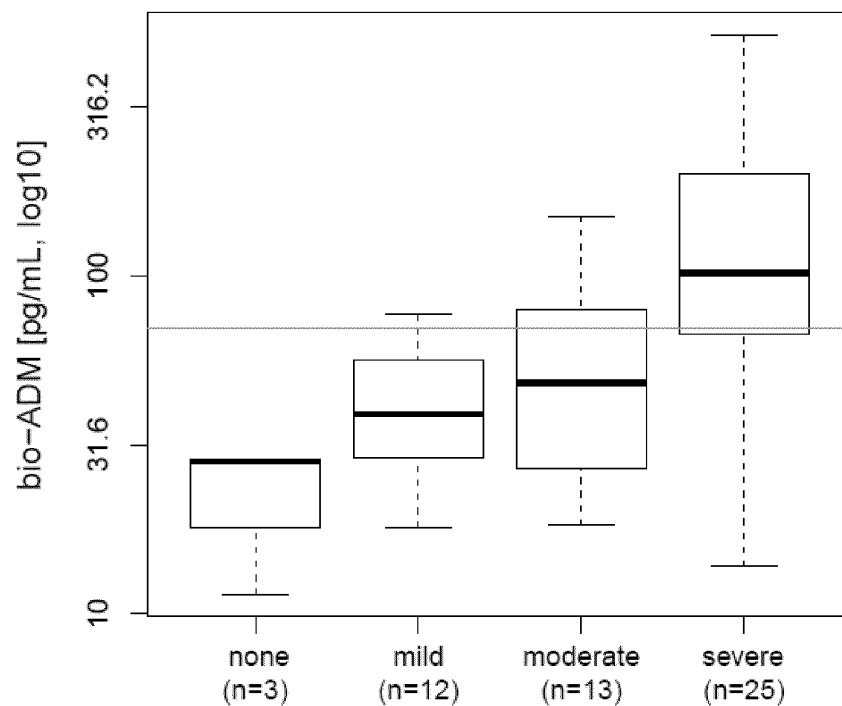


Fig. 17a

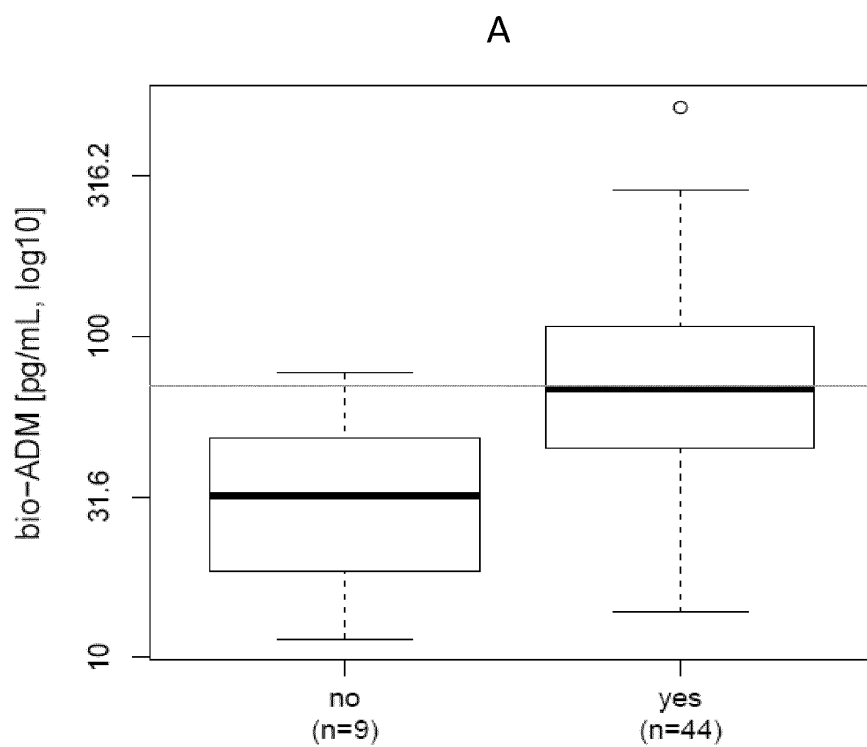


Fig. 17b

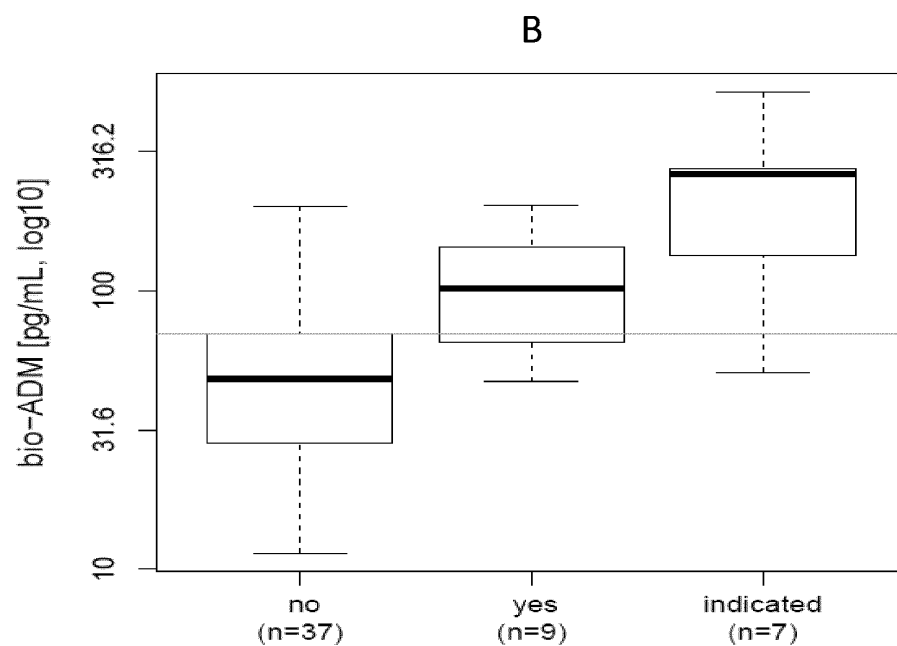


Fig. 17c

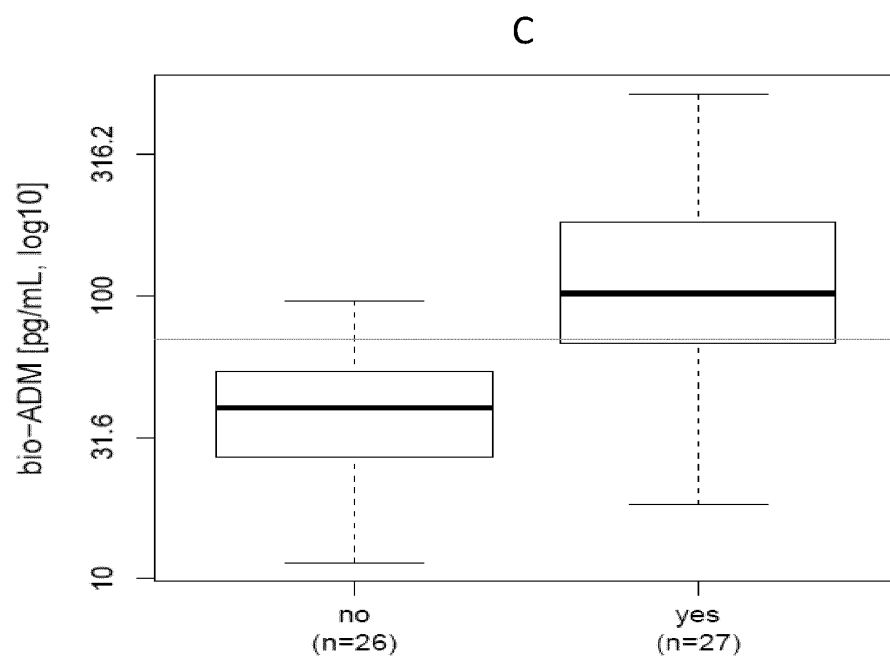


Fig. 18a

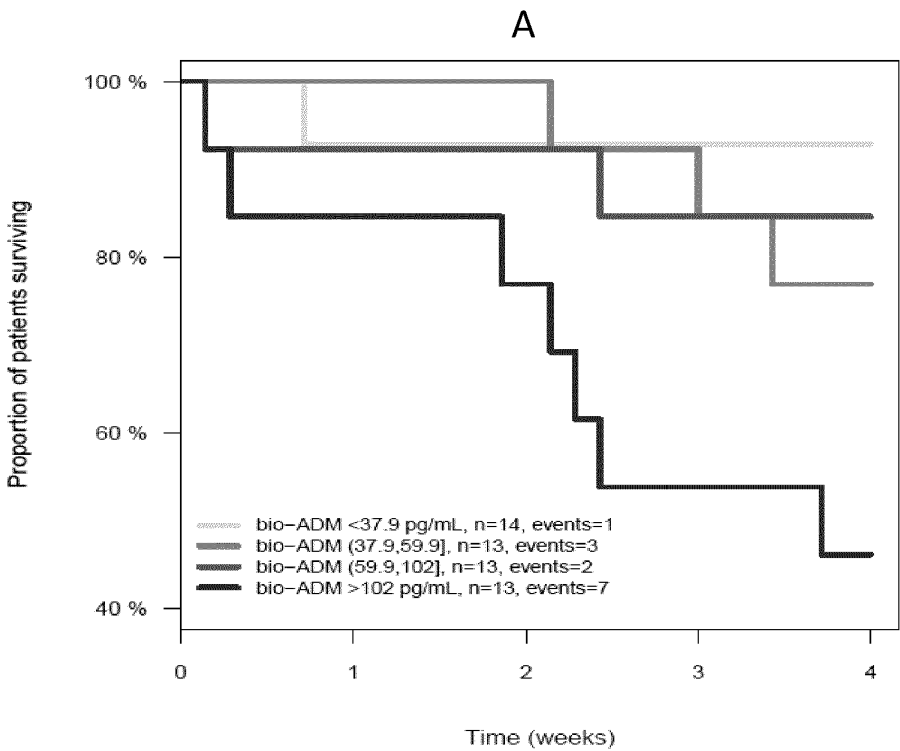


Fig. 18b

