Integrate biological replicates from different assay plates

JN

Sat Feb 17 13:43:12 2024

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## [1] "all raw data xlsx files in the directory, absolute paths: "
## [2] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate02.xlsx"
## [3] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate03.xlsx"
## [4] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate04.xlsx"
## [5] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate05.xlsx"
## [6] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate06.xlsx"
## [7] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/input/plate07.xlsx"
```

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## [1] "all raw data xlsx files in the directory: "
## [2] "plate02.xlsx"
## [3] "plate03.xlsx"
## [4] "plate04.xlsx"
## [5] "plate05.xlsx"
## [6] "plate06.xlsx"
## [7] "plate07.xlsx"
```
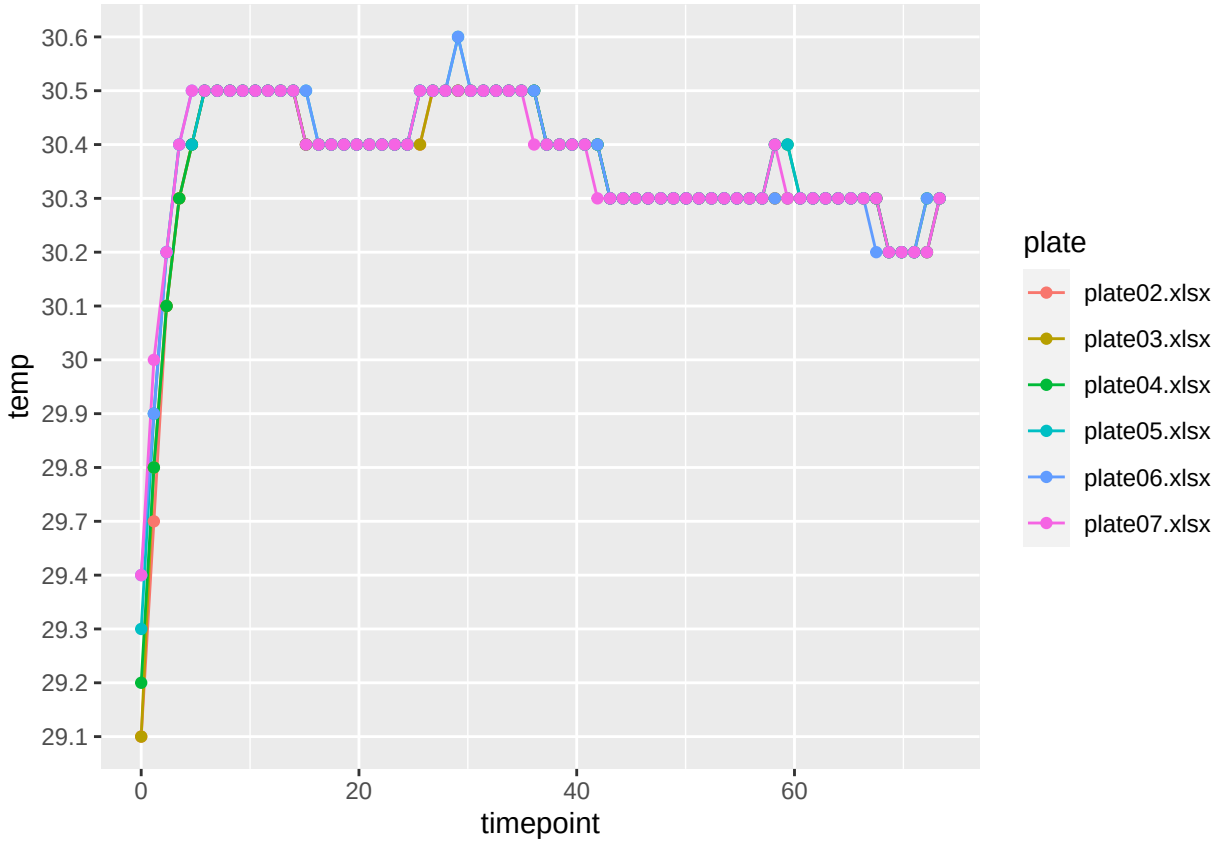
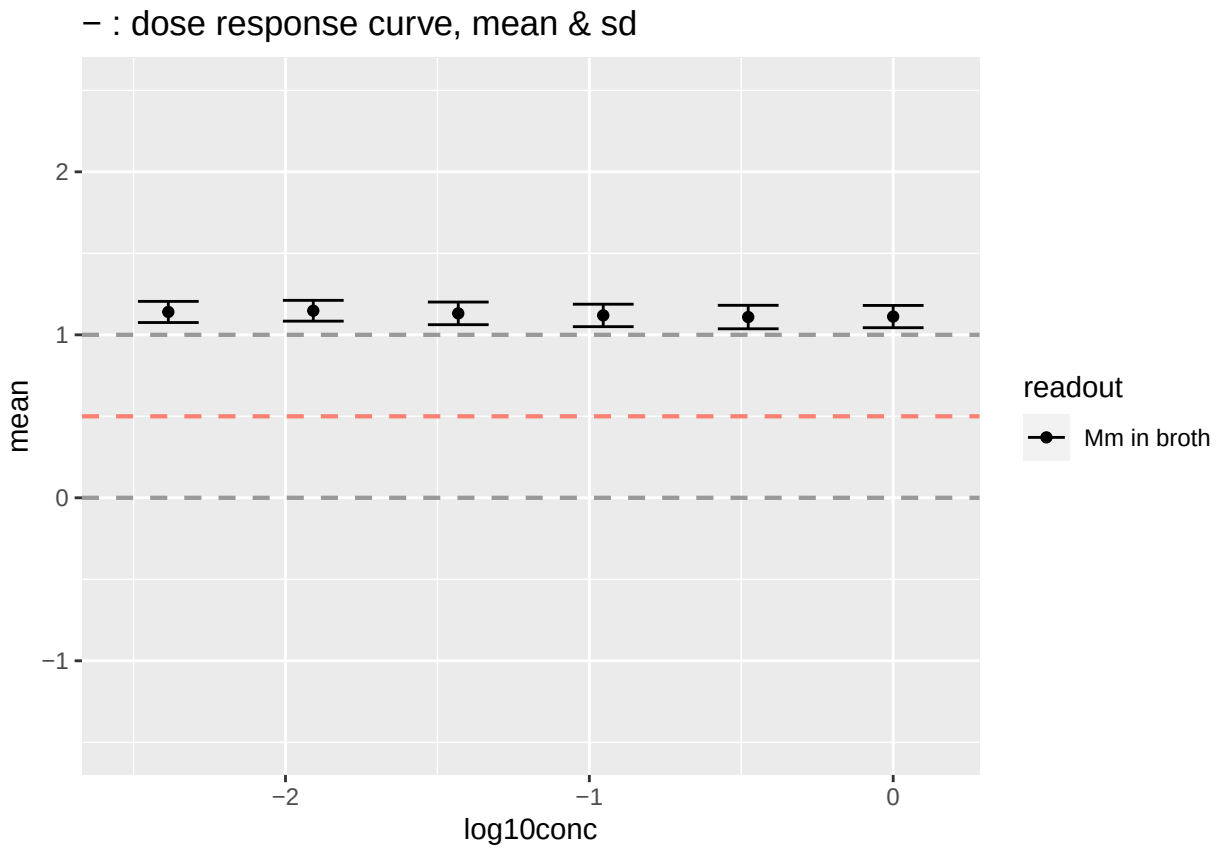

```
## [1] "all corresponding RData files in the directory: "
## [2] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate02.xlsx.RData
## [3] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate03.xlsx.RData
## [4] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate04.xlsx.RData
## [5] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate05.xlsx.RData
## [6] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate06.xlsx.RData
## [7] "C:/Users/jahn_/Desktop/analyses/broth_demonstration_dataset/output/plate_data_plate07.xlsx.RData
```

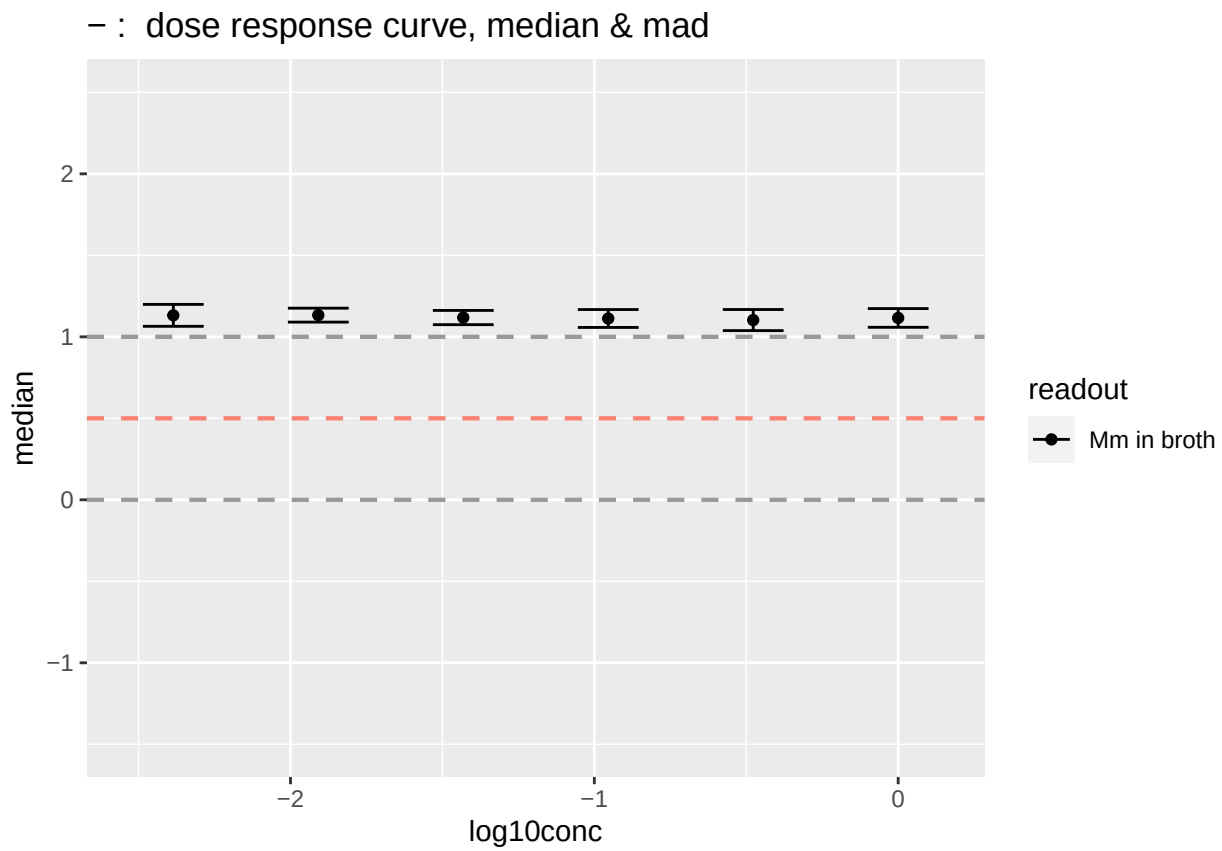


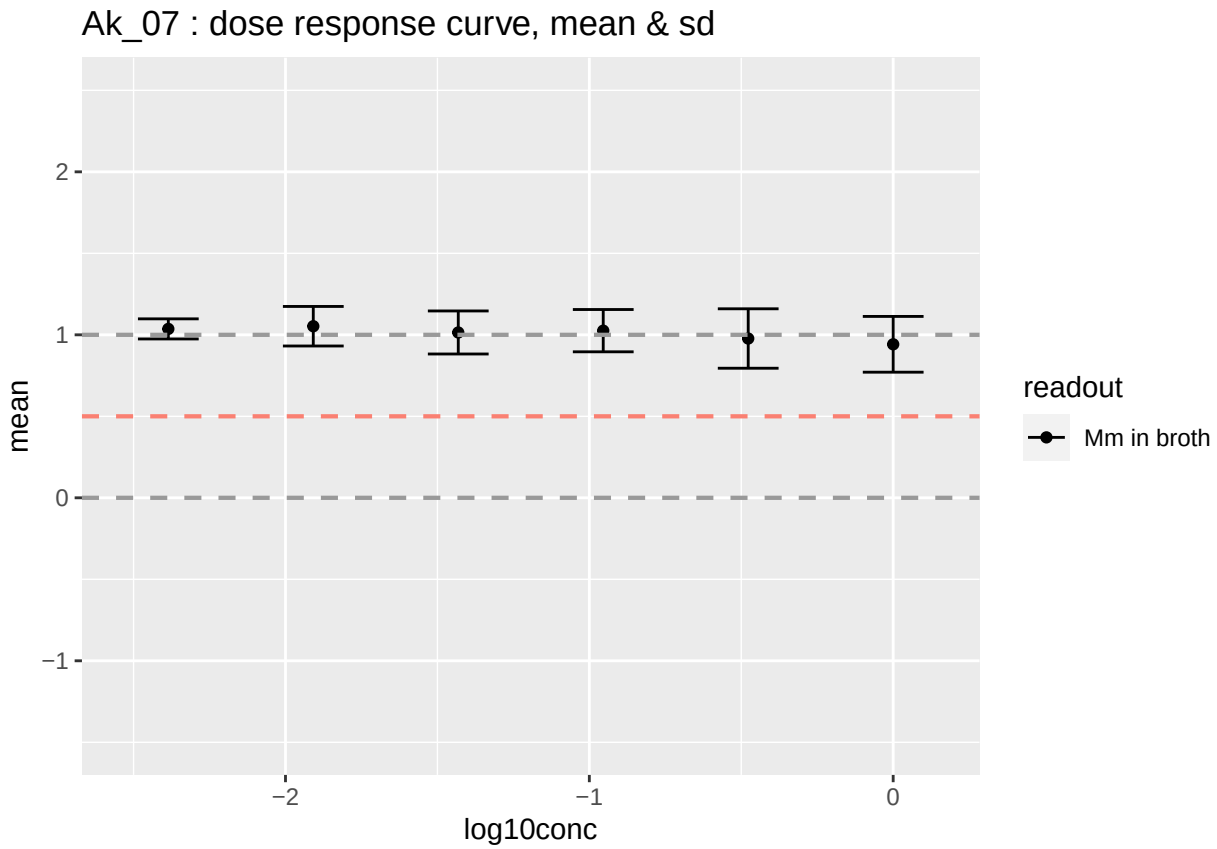

```
## [1] 768
## [1] 768
## [1] 768
```

```
## pdf
##   2
```

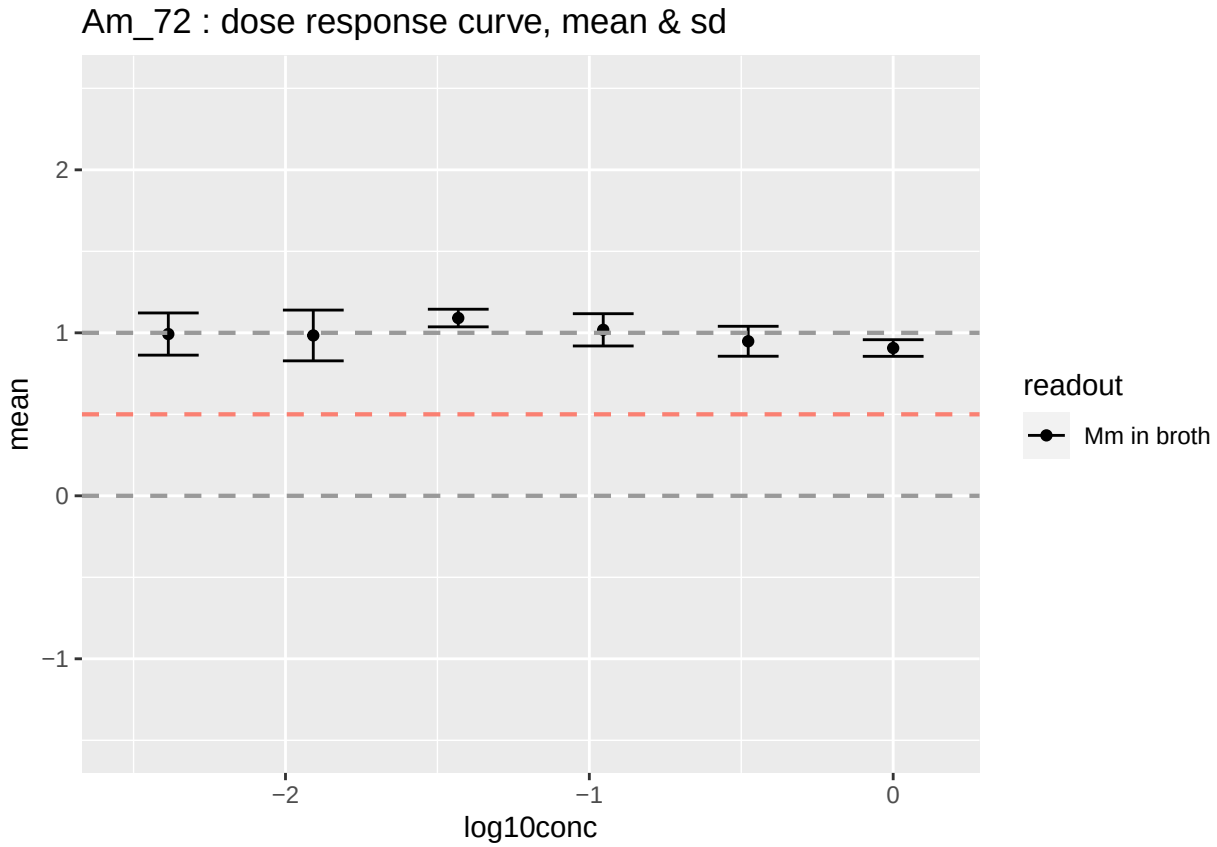
```
## pdf
##   2
```

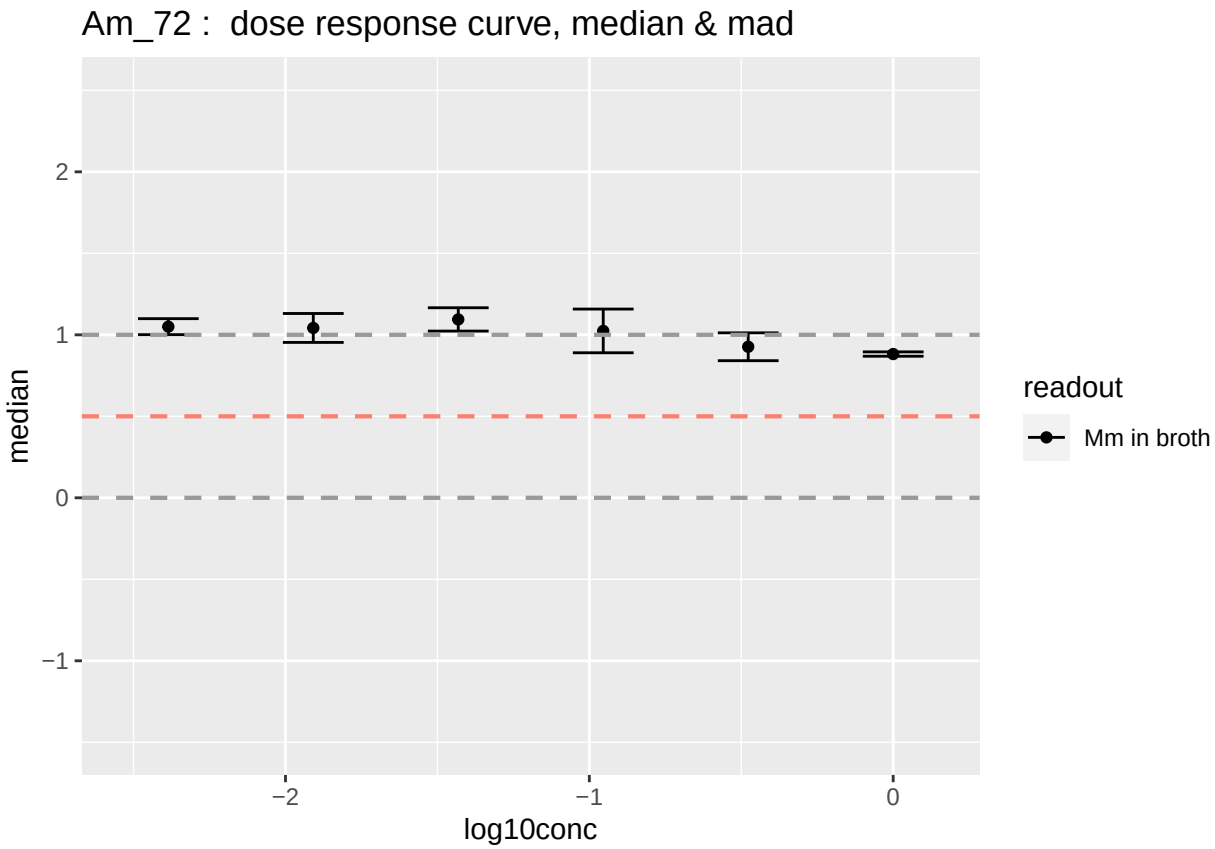

− : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


− : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

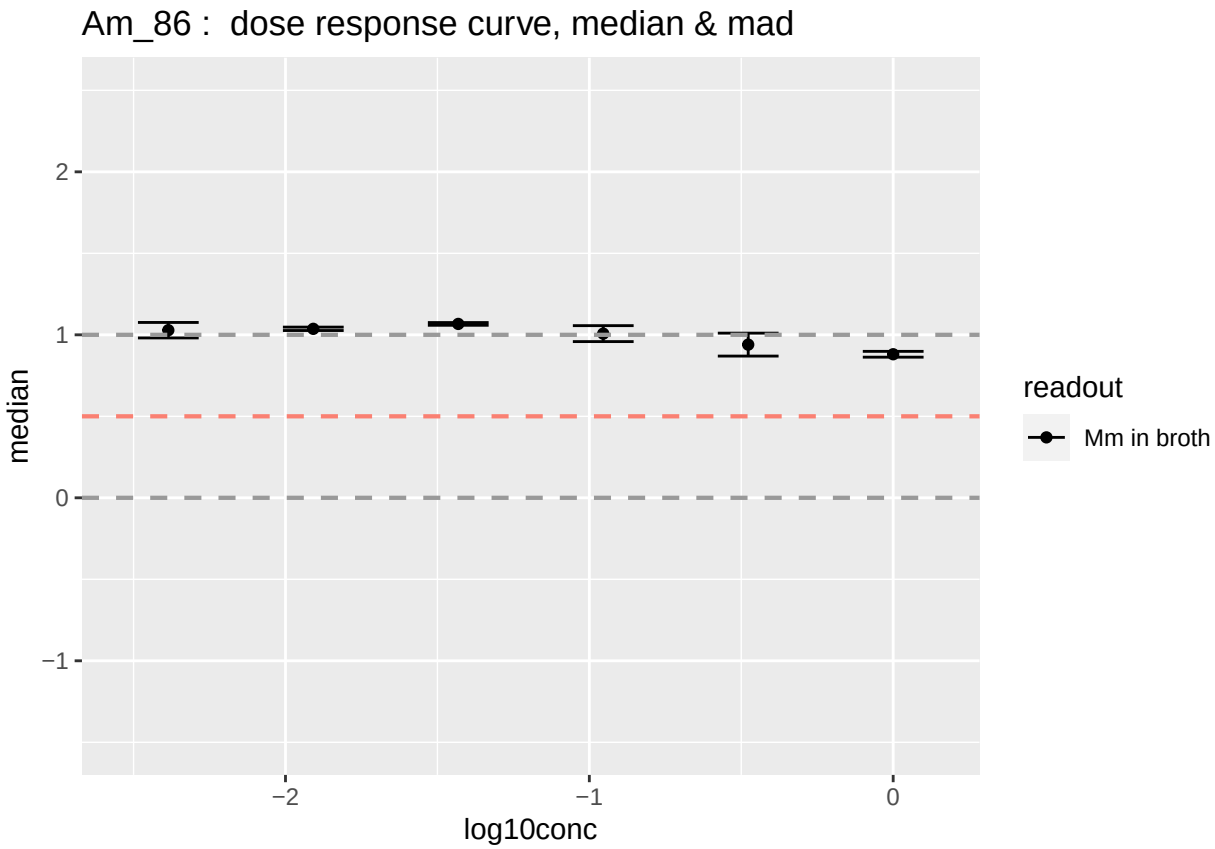

Ak_07 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

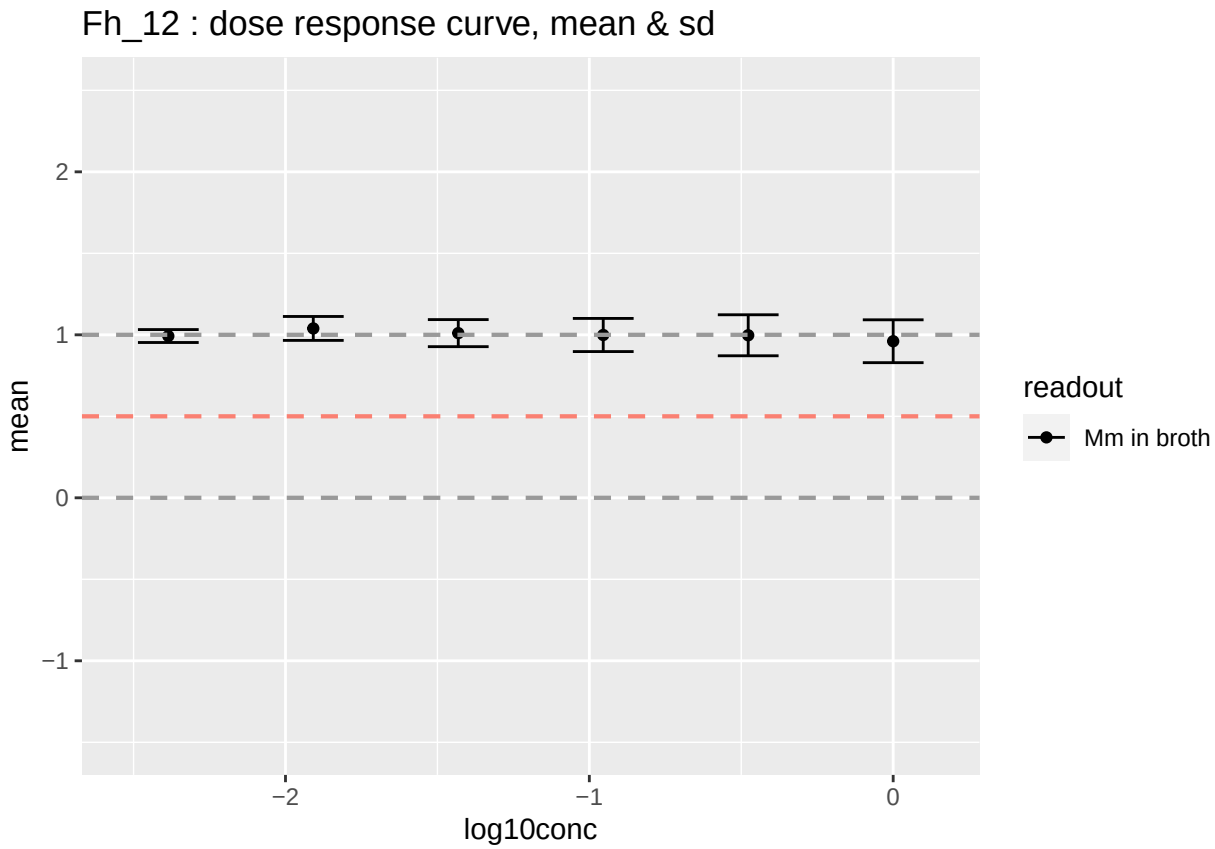

Ak_07 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Am_72 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Am_72 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

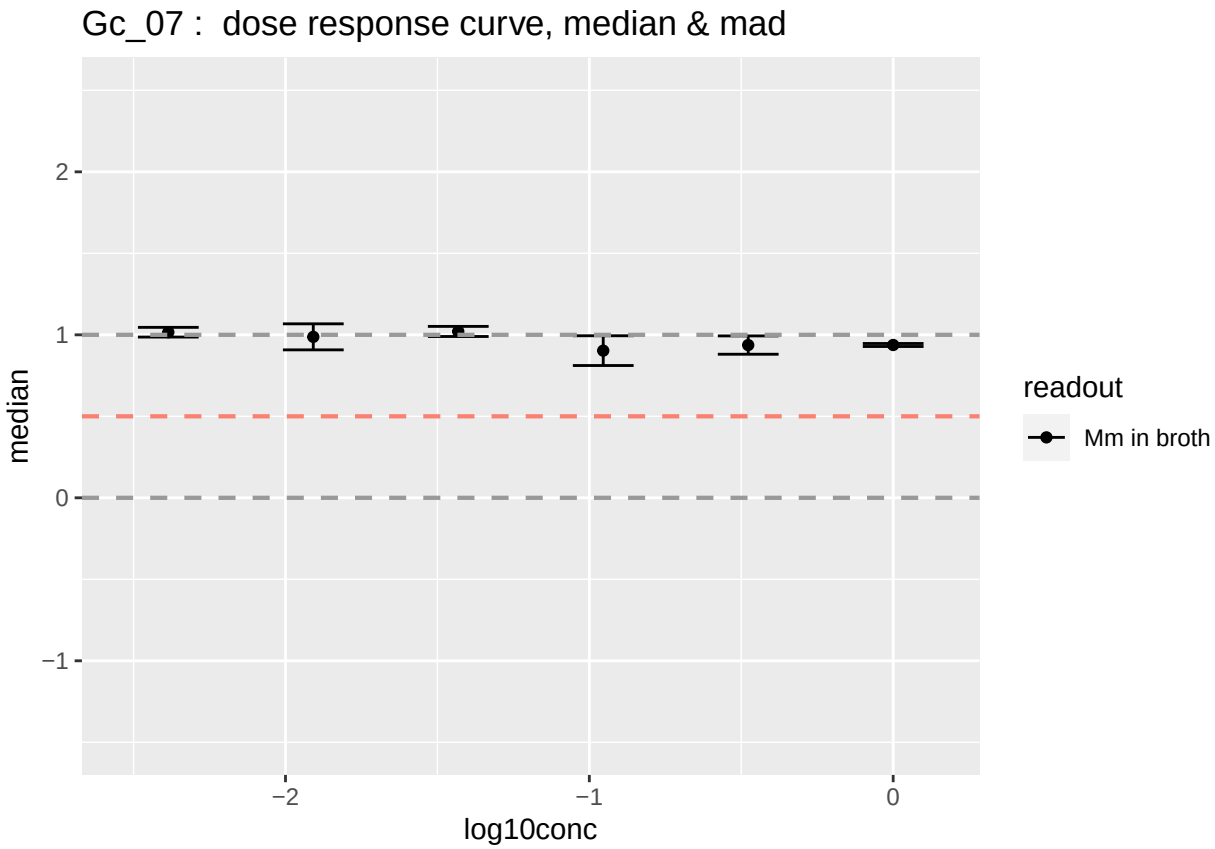

Am_86 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Am_86 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Fh_12 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Fh_12 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

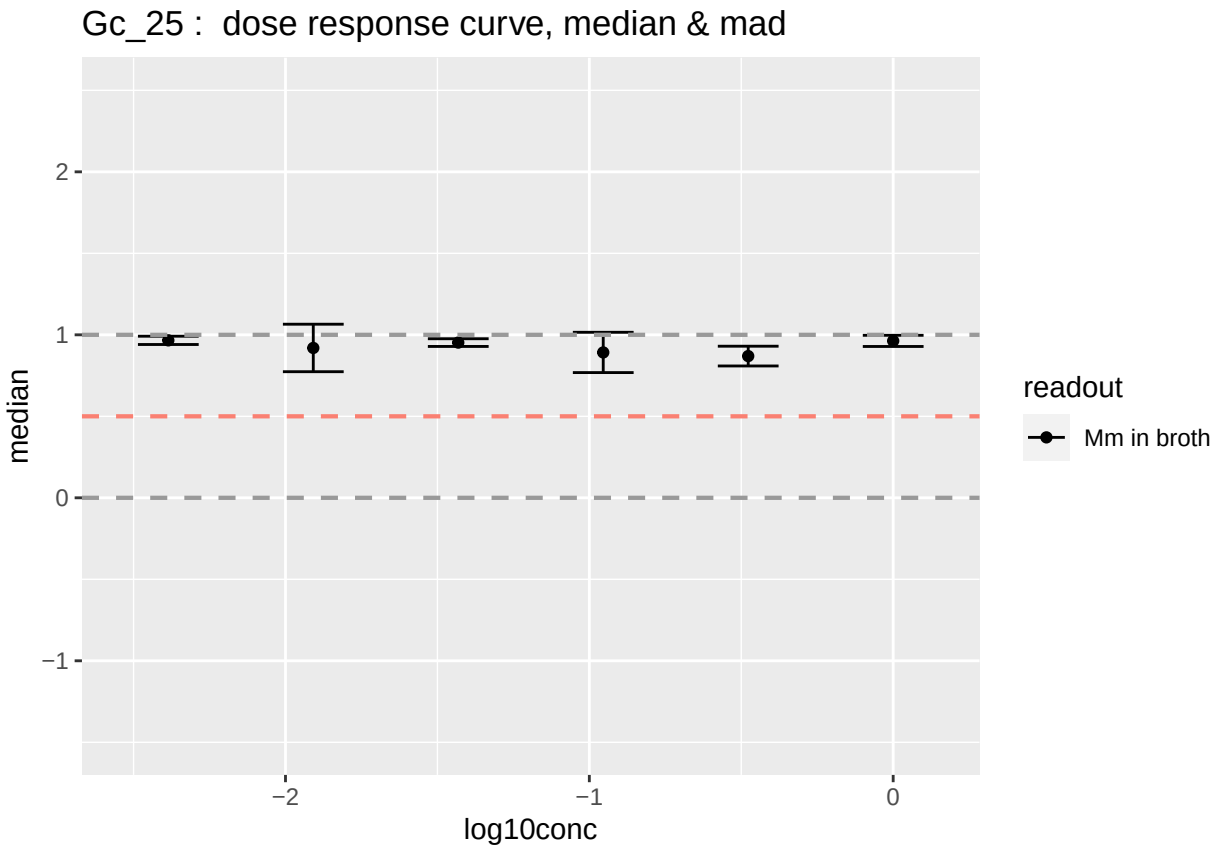

Gc_07 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_07 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

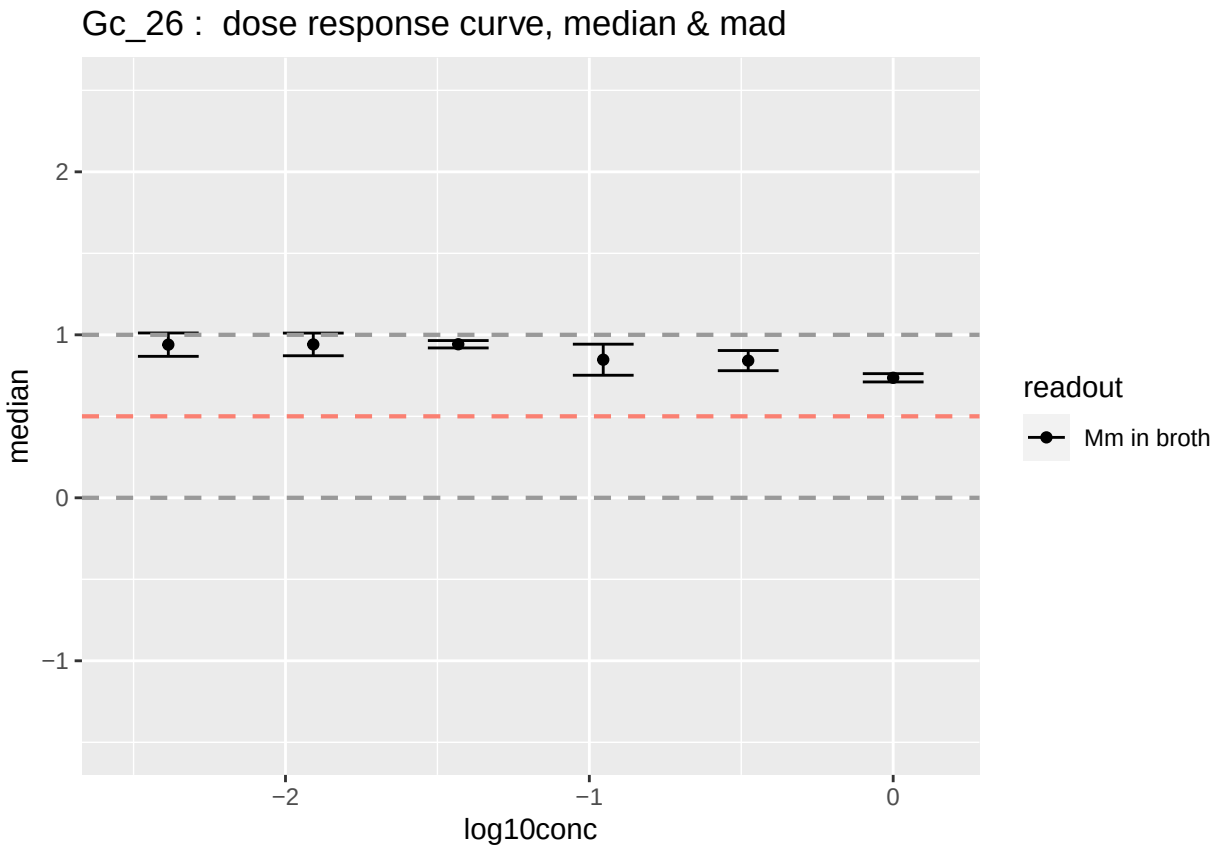

Gc_23 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_23 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

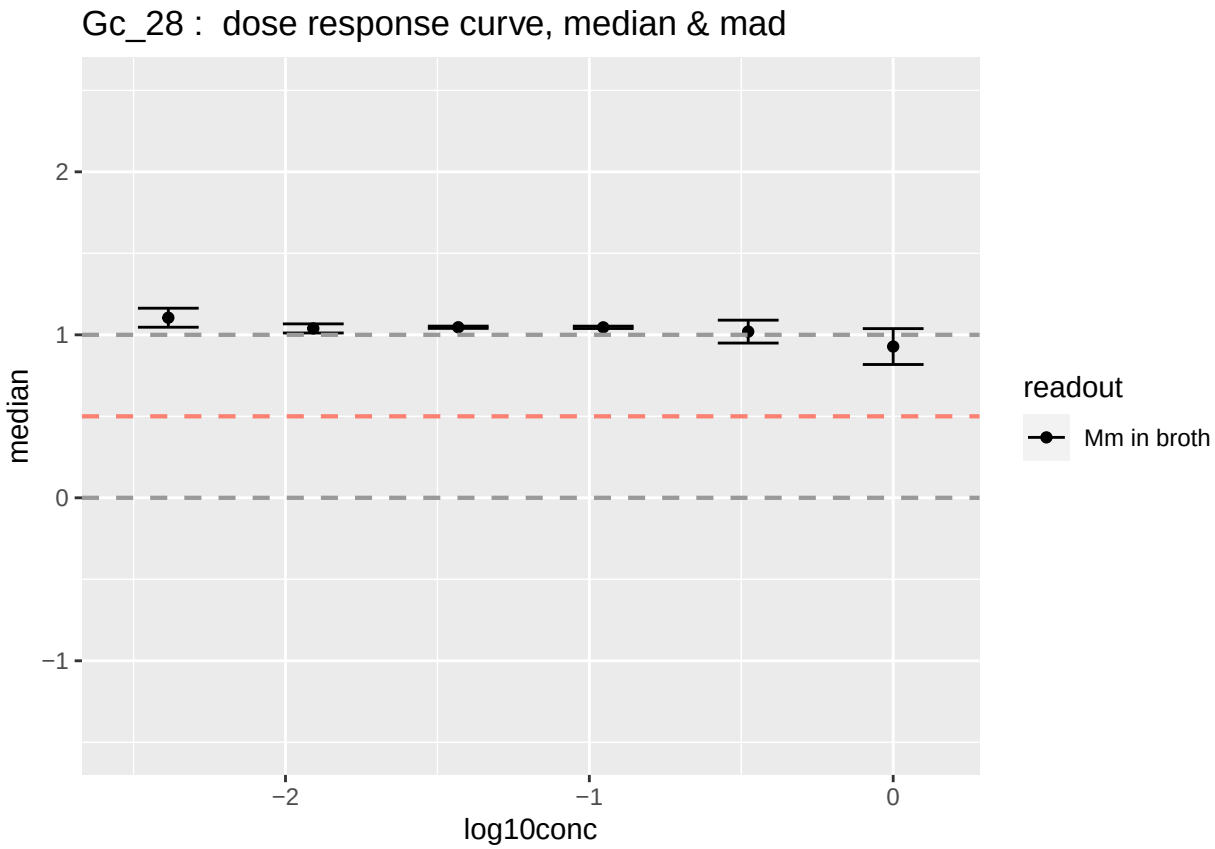

Gc_25 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_25 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

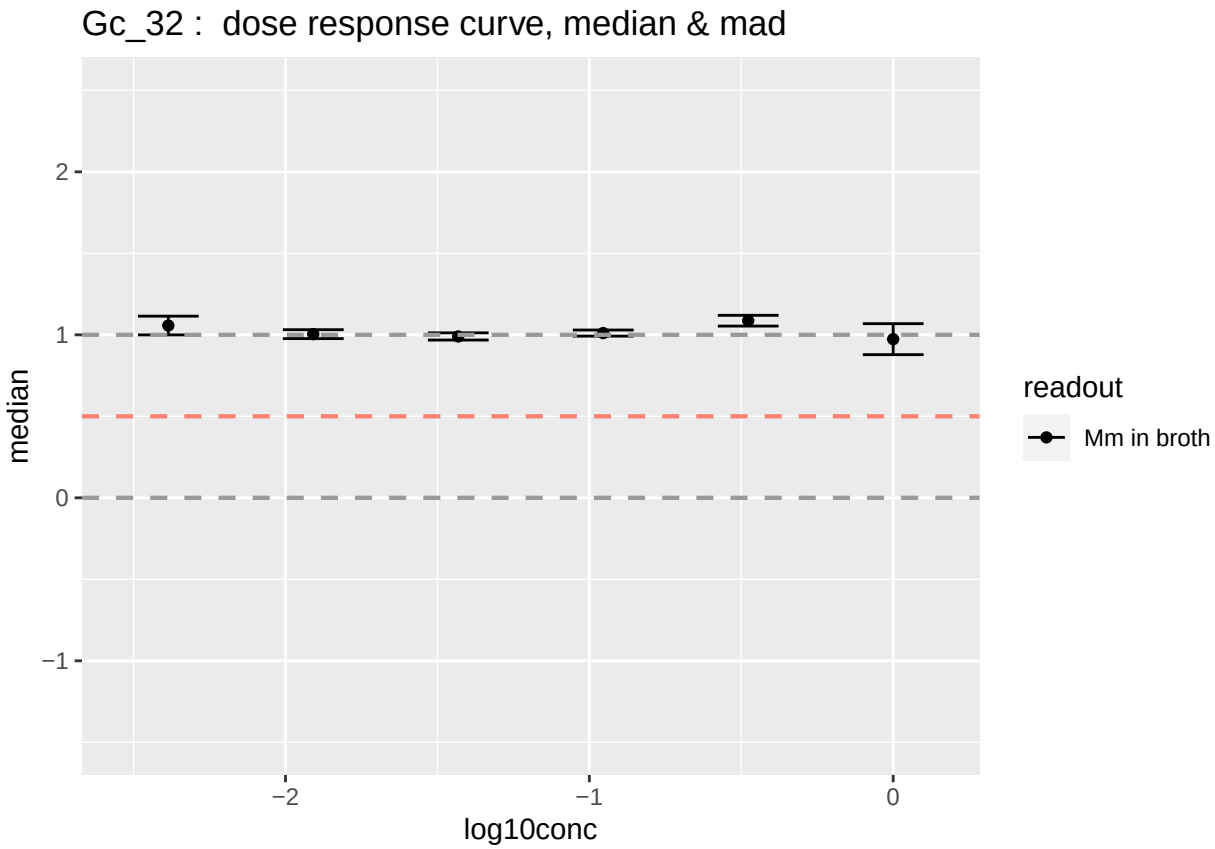

Gc_26 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_26 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

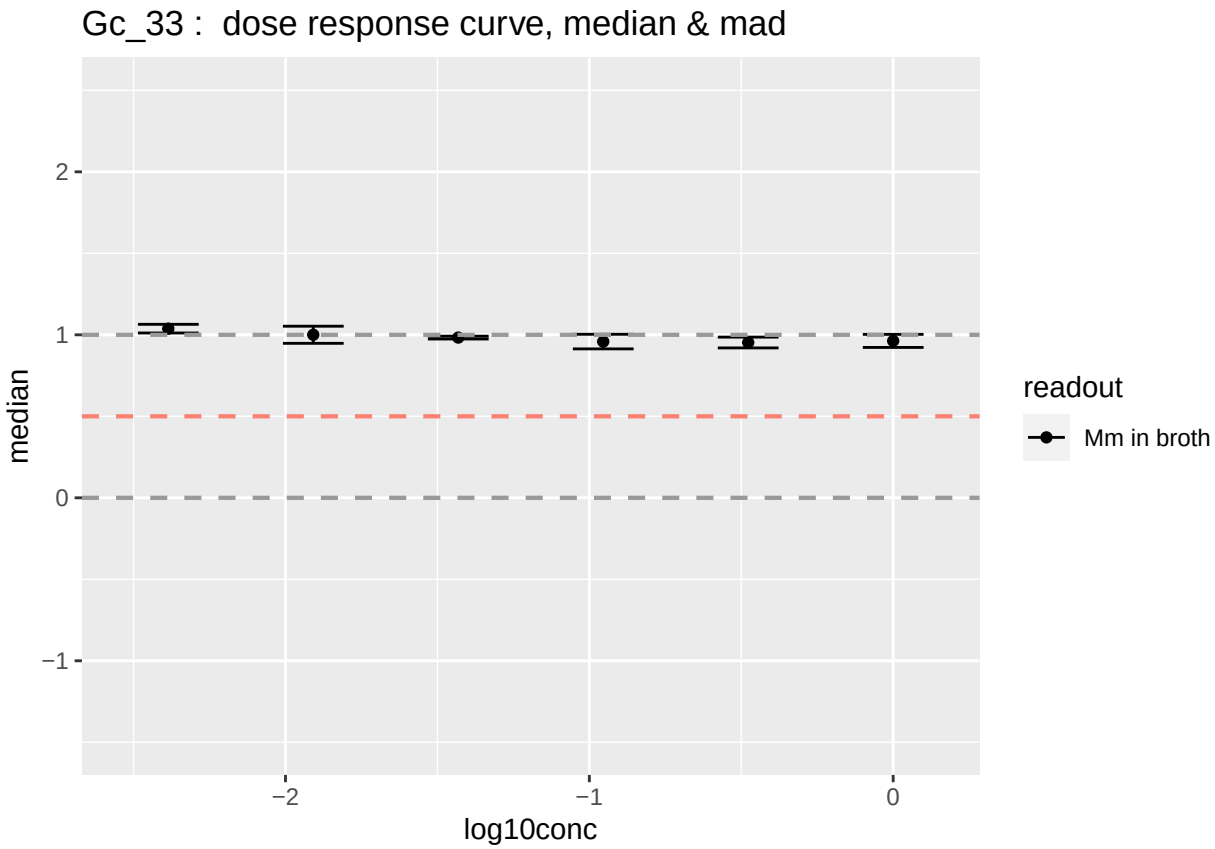

Gc_28 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_28 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

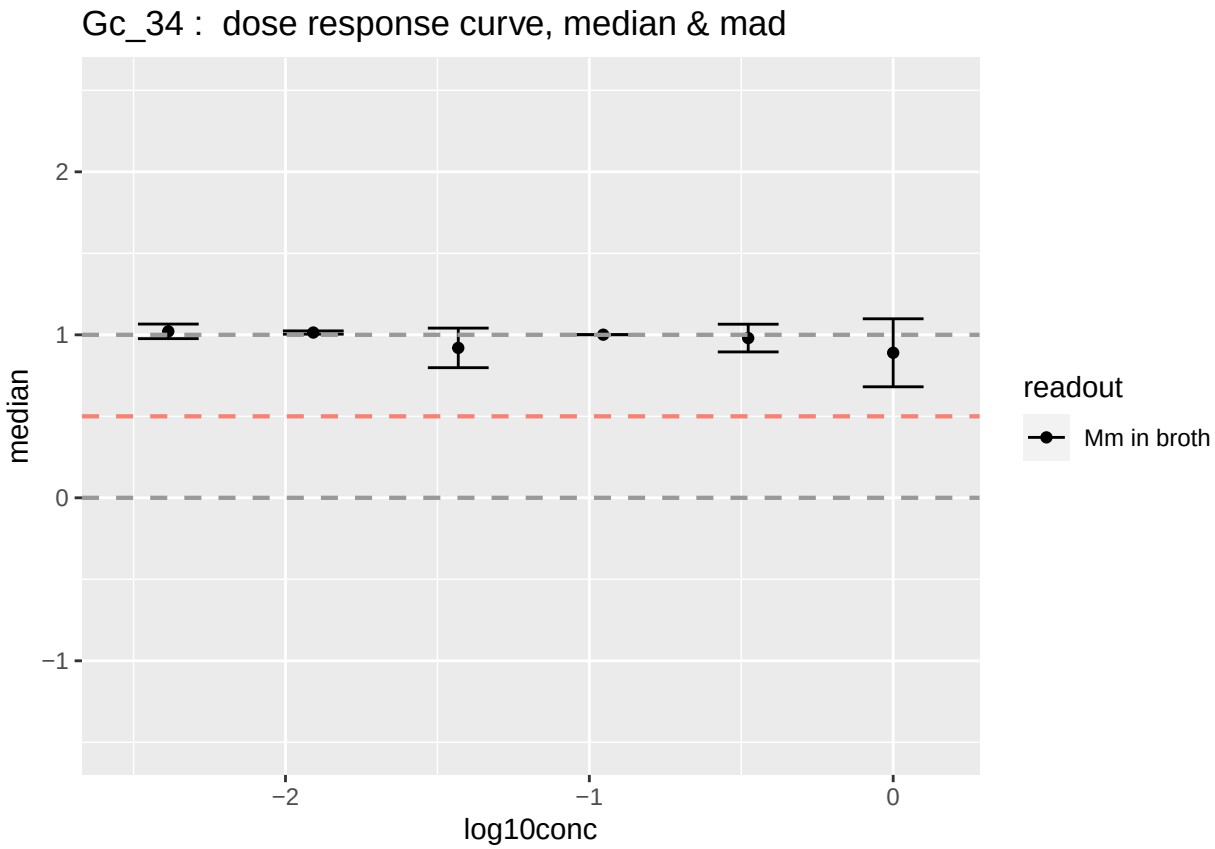

Gc_32 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_32 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

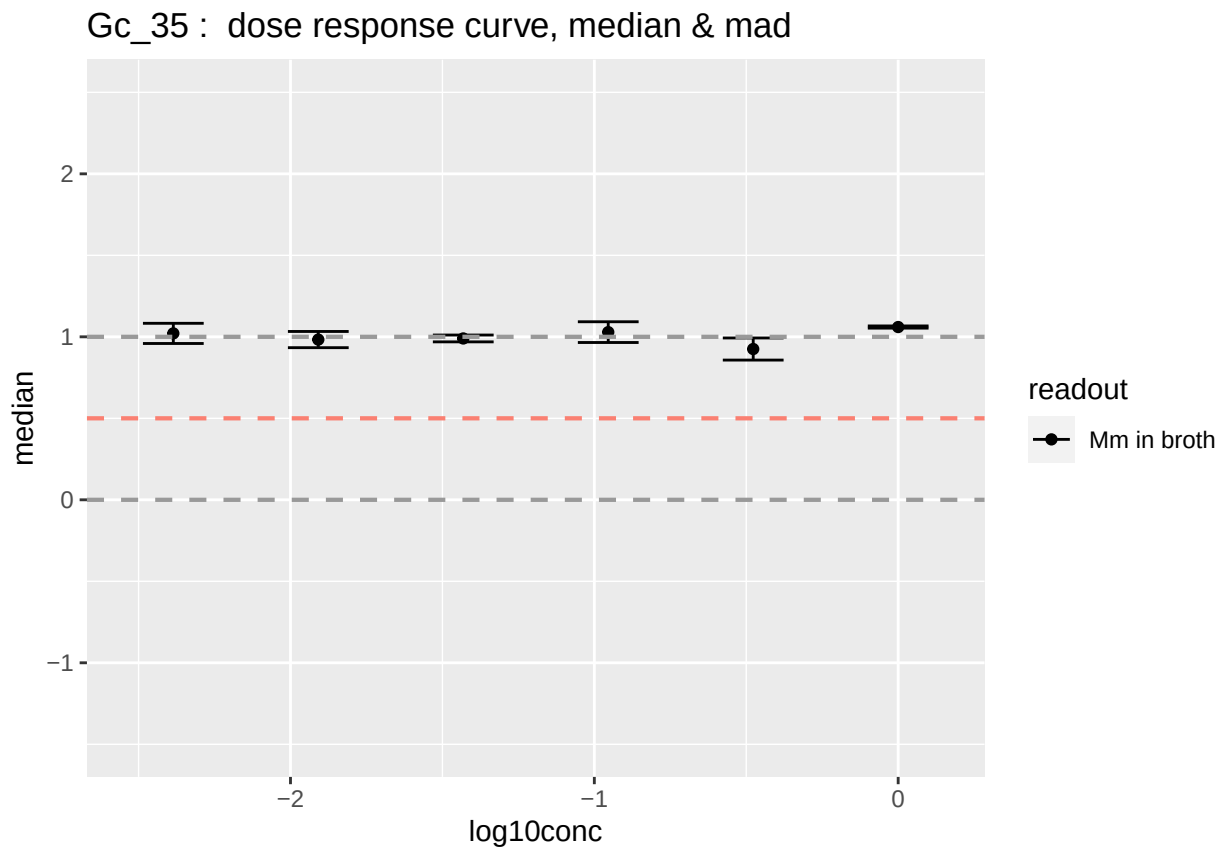

Gc_33 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_33 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_34 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Gc_34 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

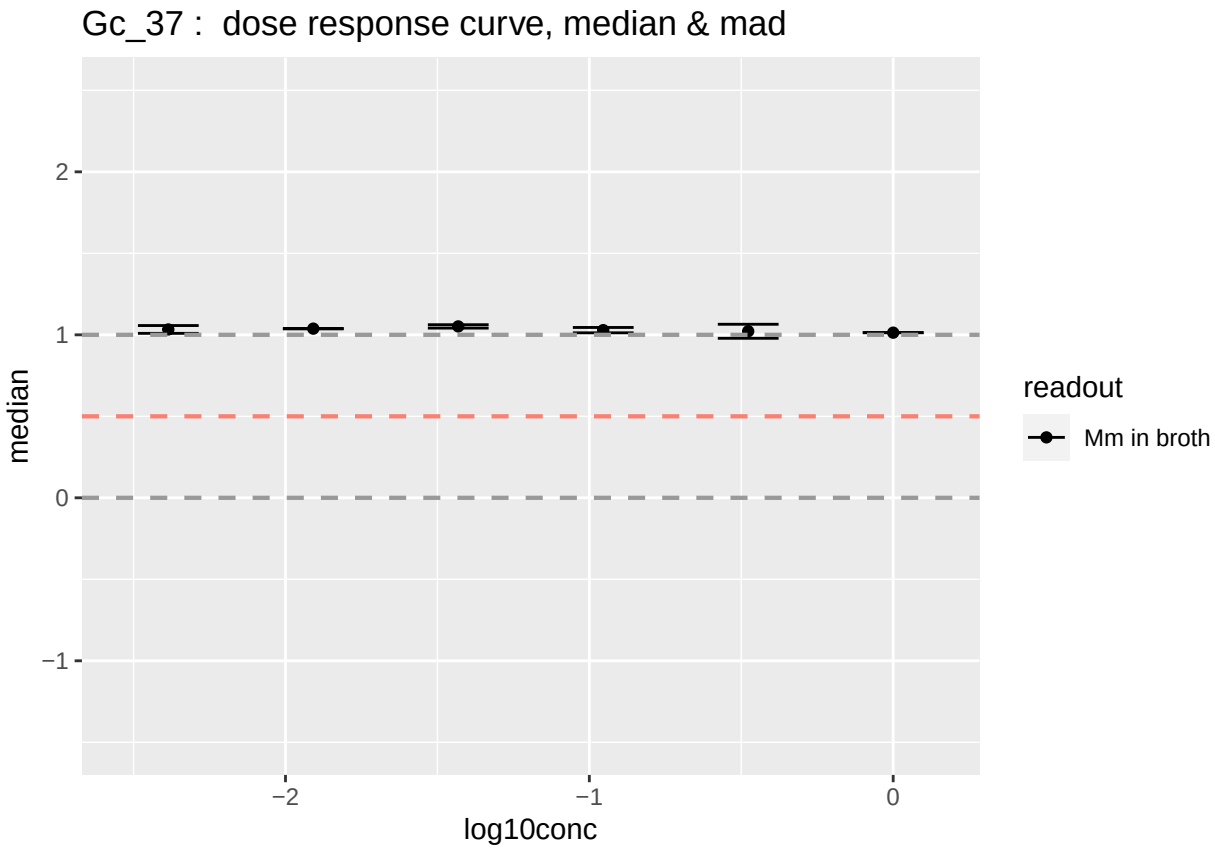

Gc_35 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

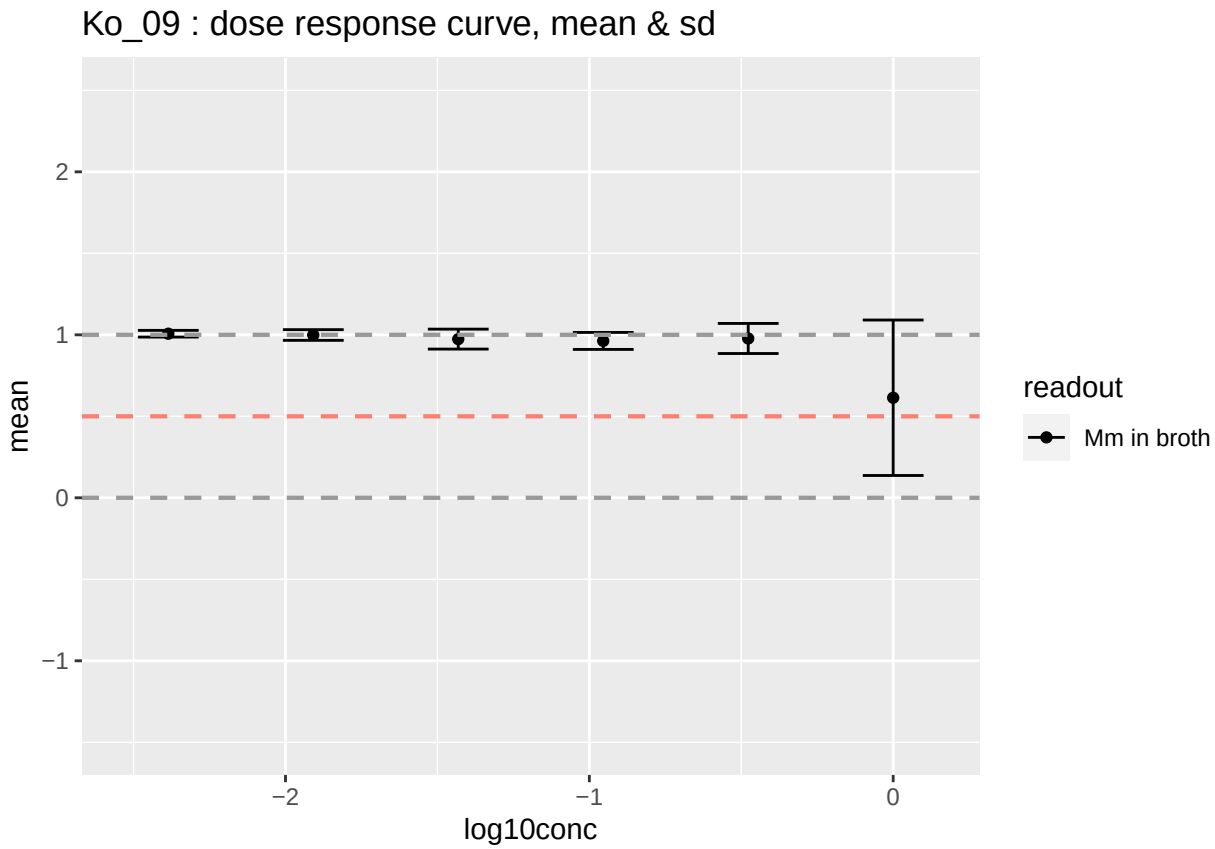

Gc_35 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

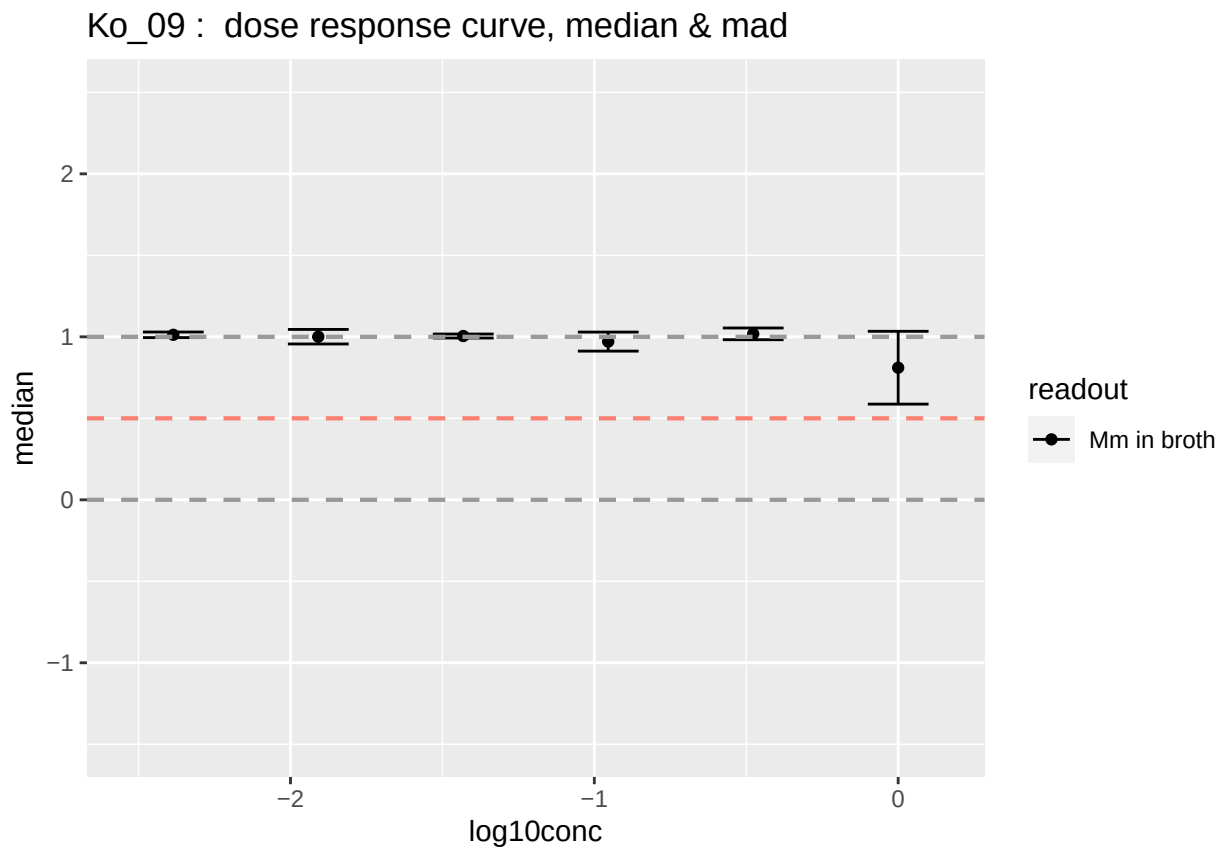

Gc_36 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

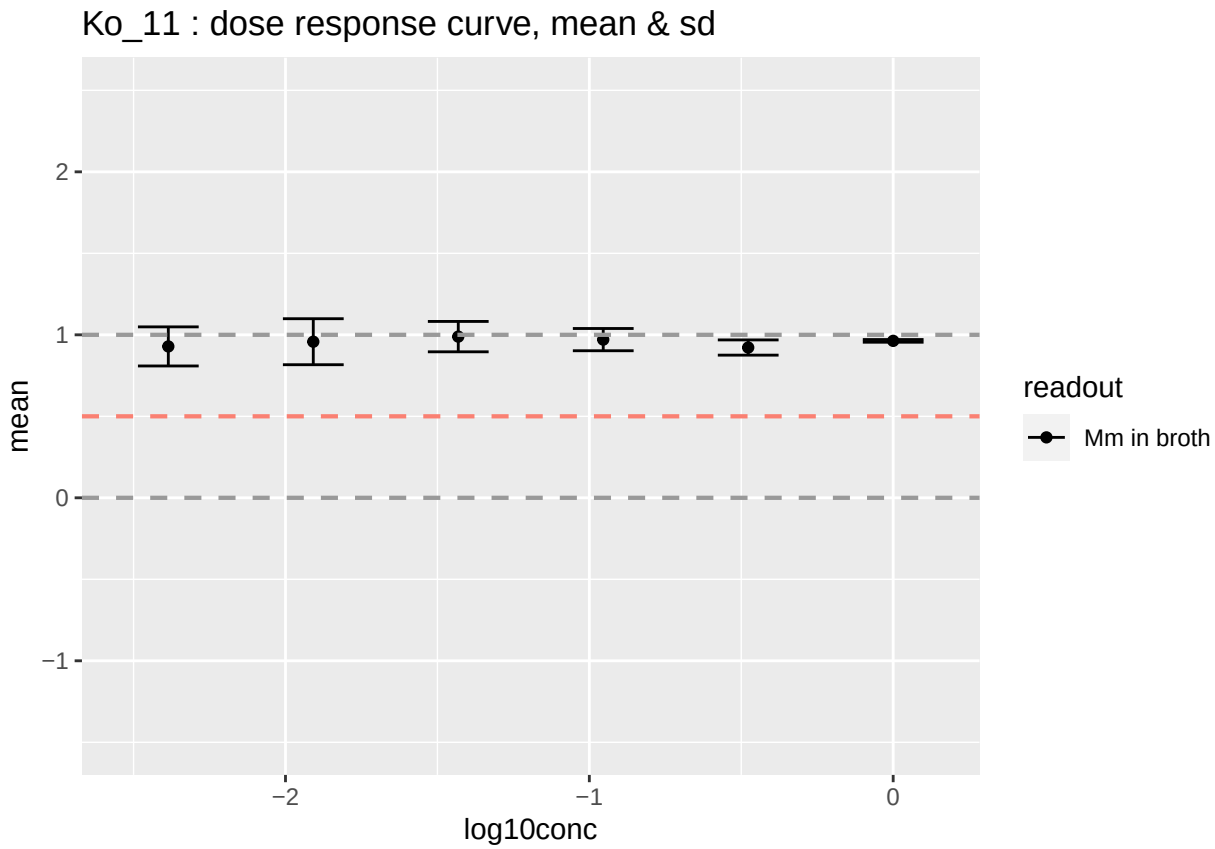

Gc_36 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

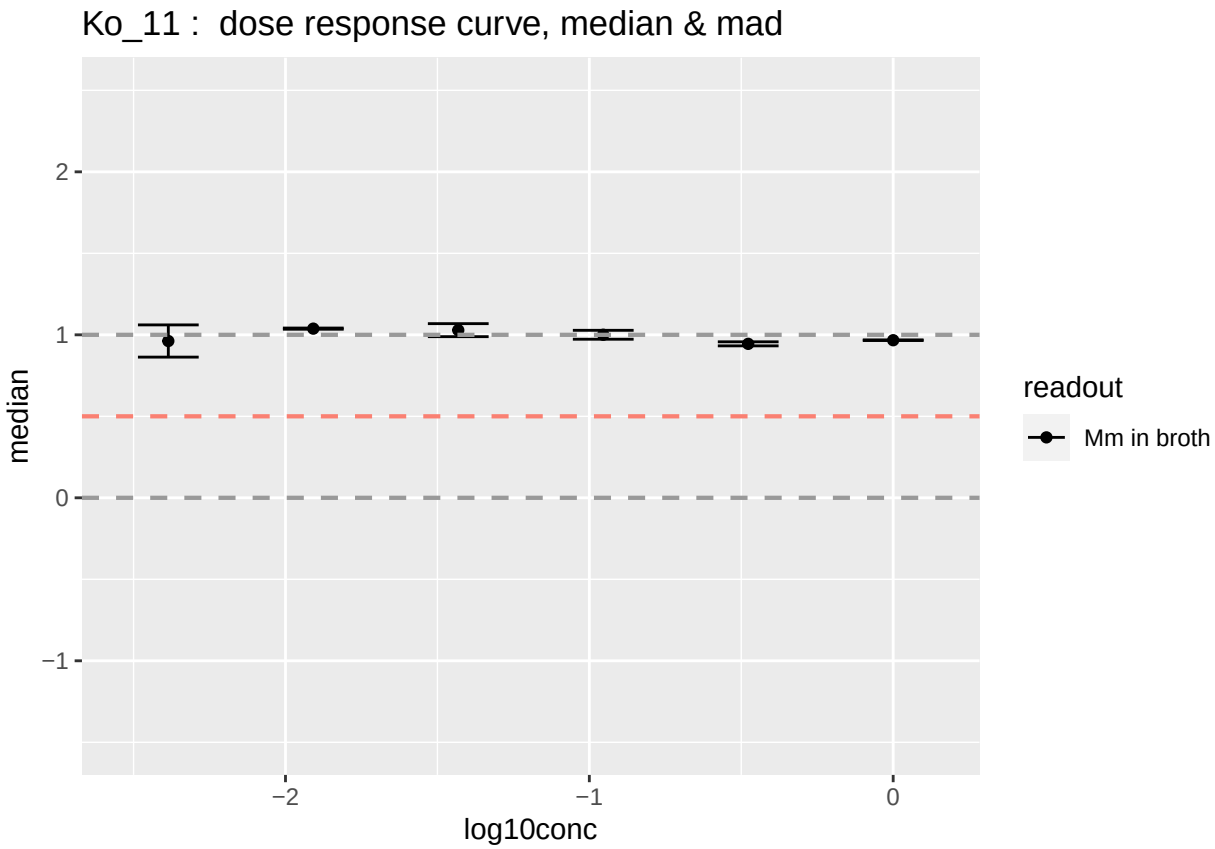

Gc_37 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

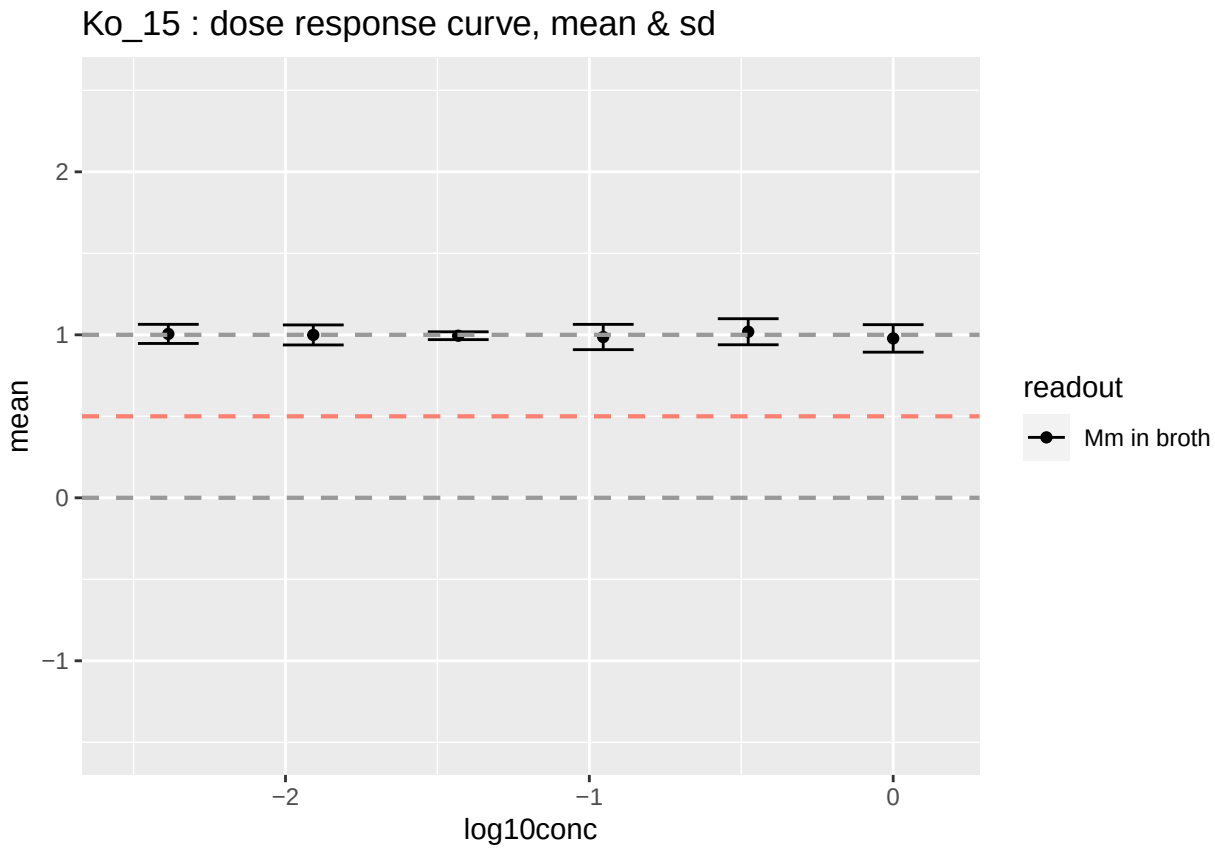

Gc_37 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

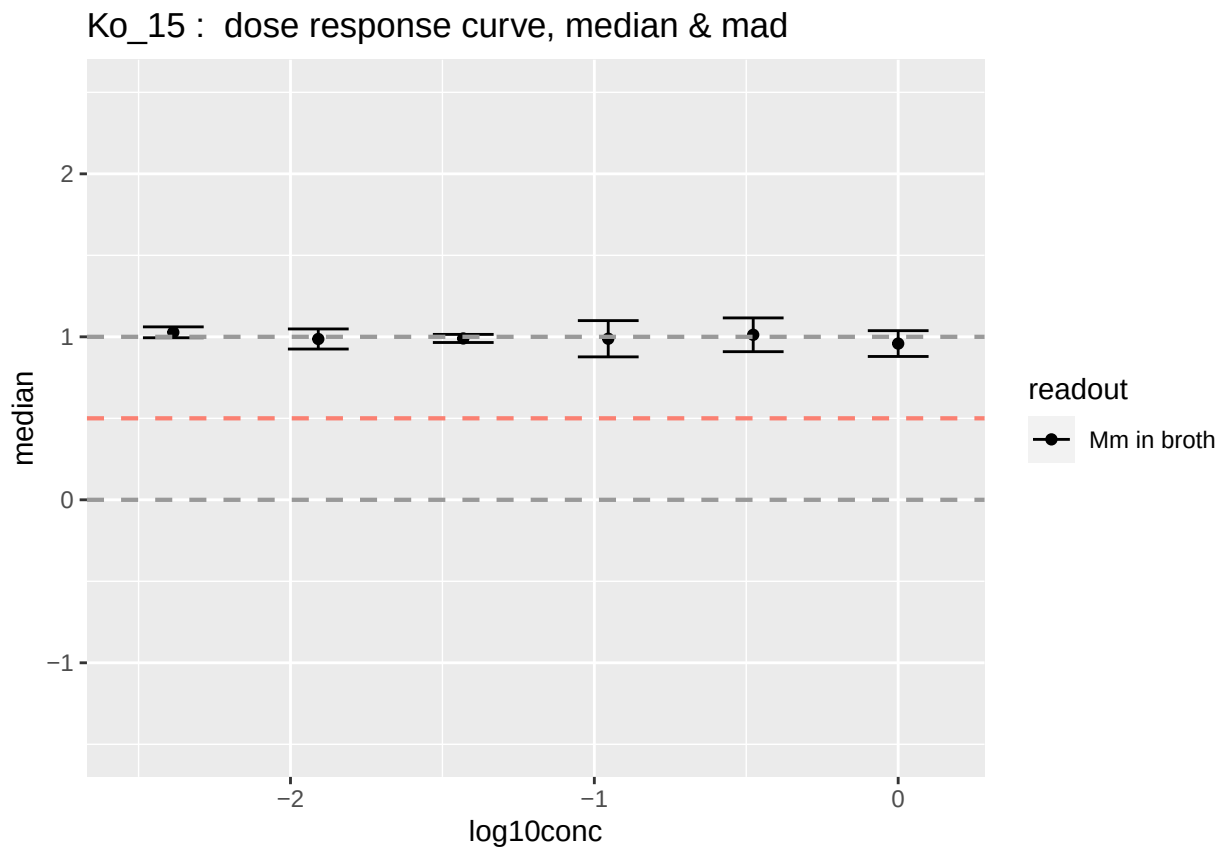

Ko_09 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

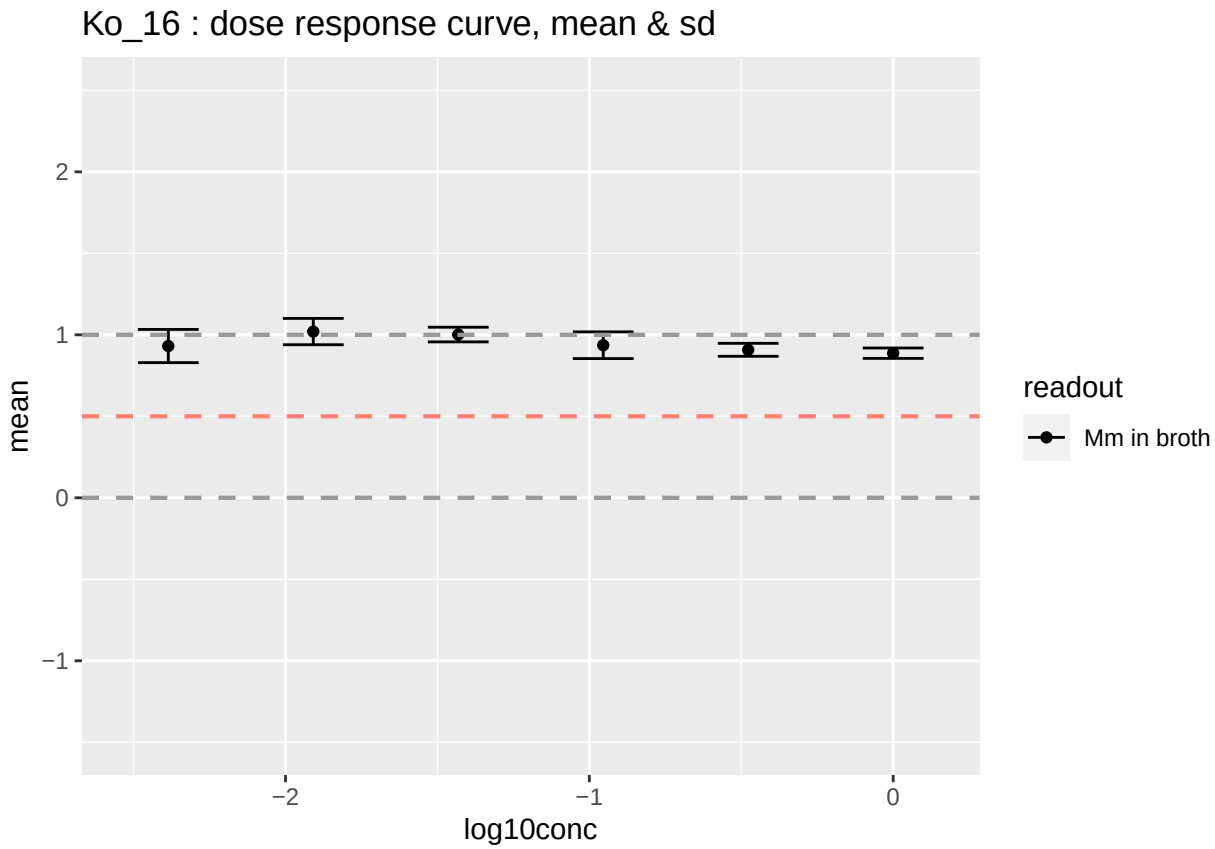

Ko_09 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

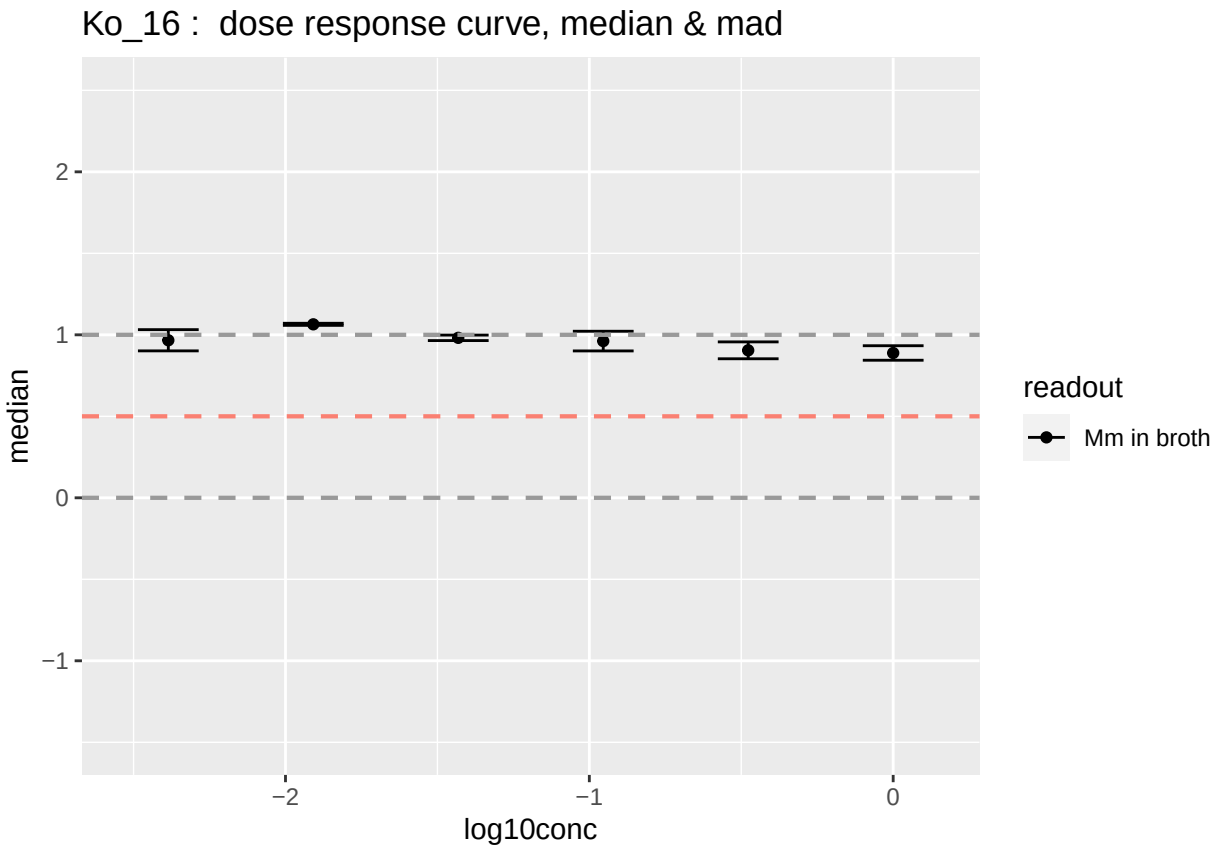

Ko_11 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Ko_11 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

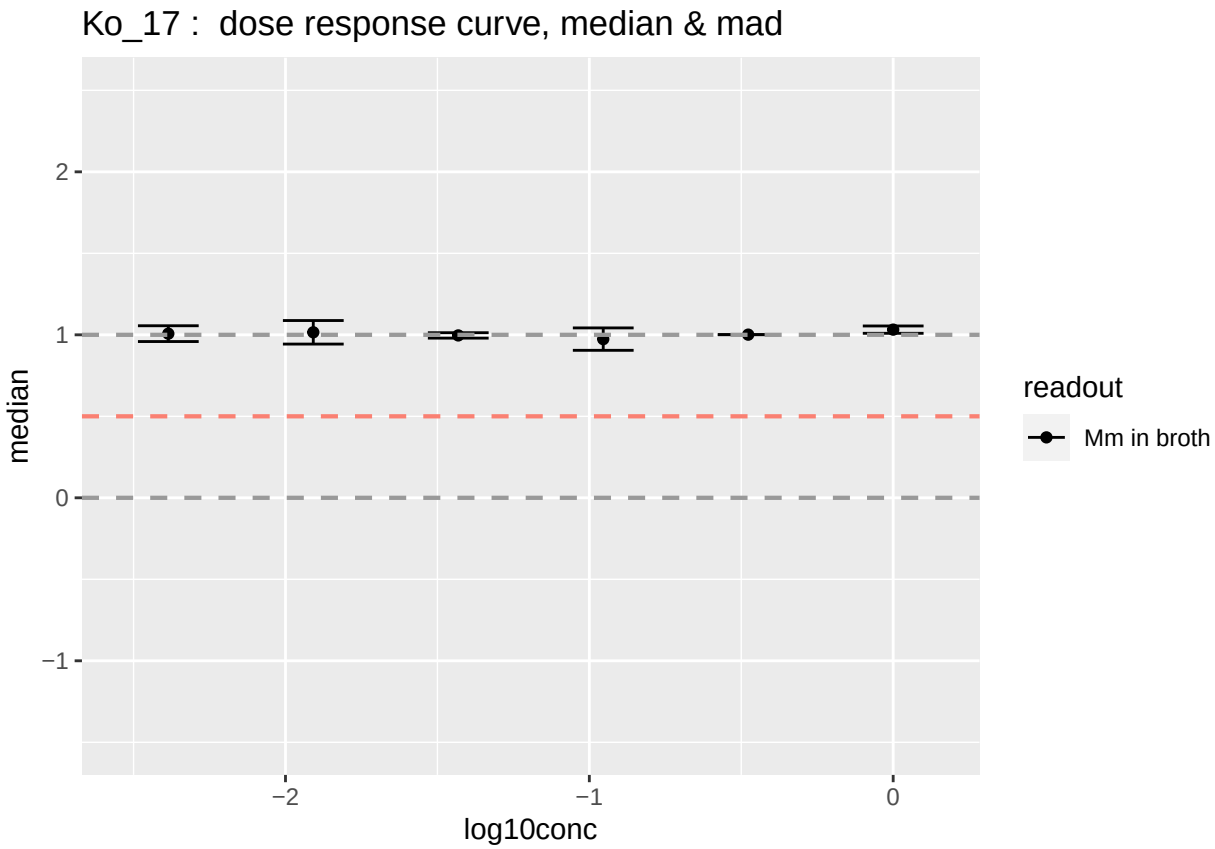

Ko_15 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

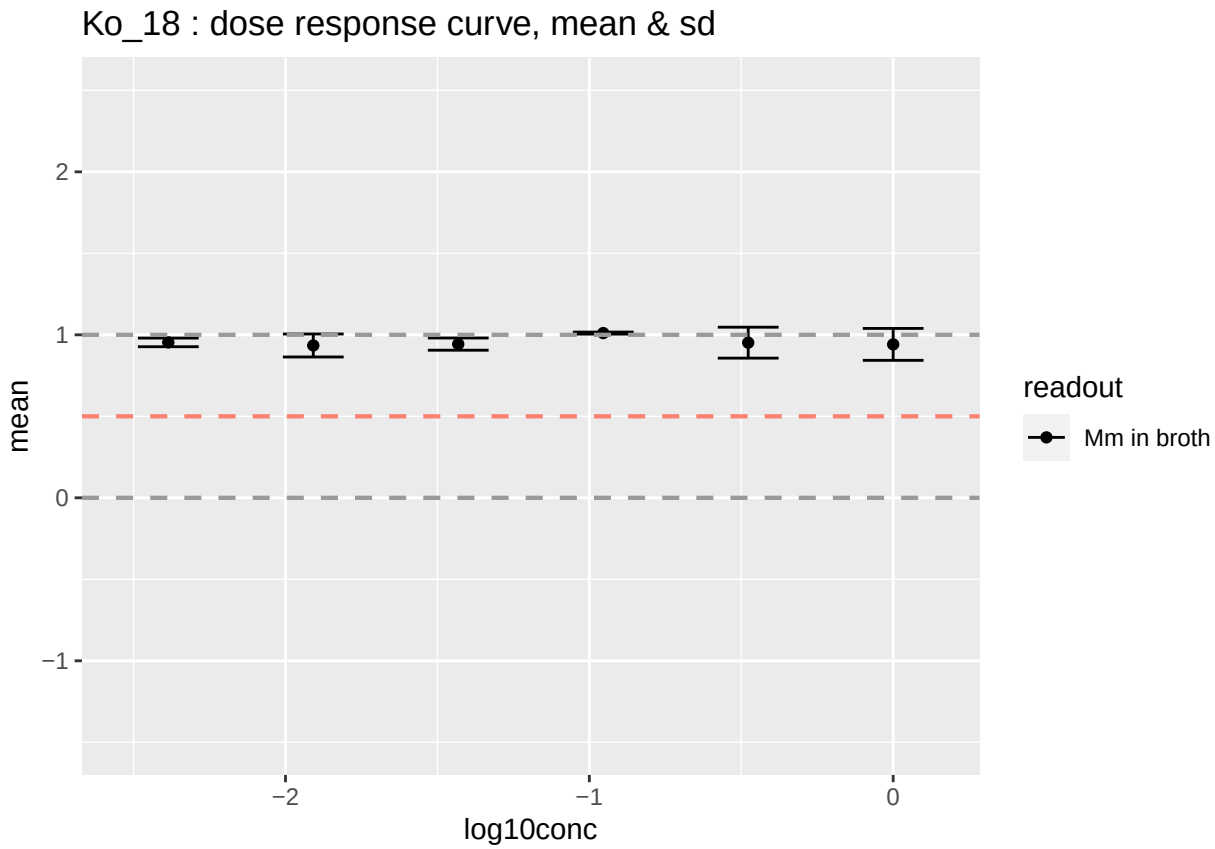

Ko_15 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

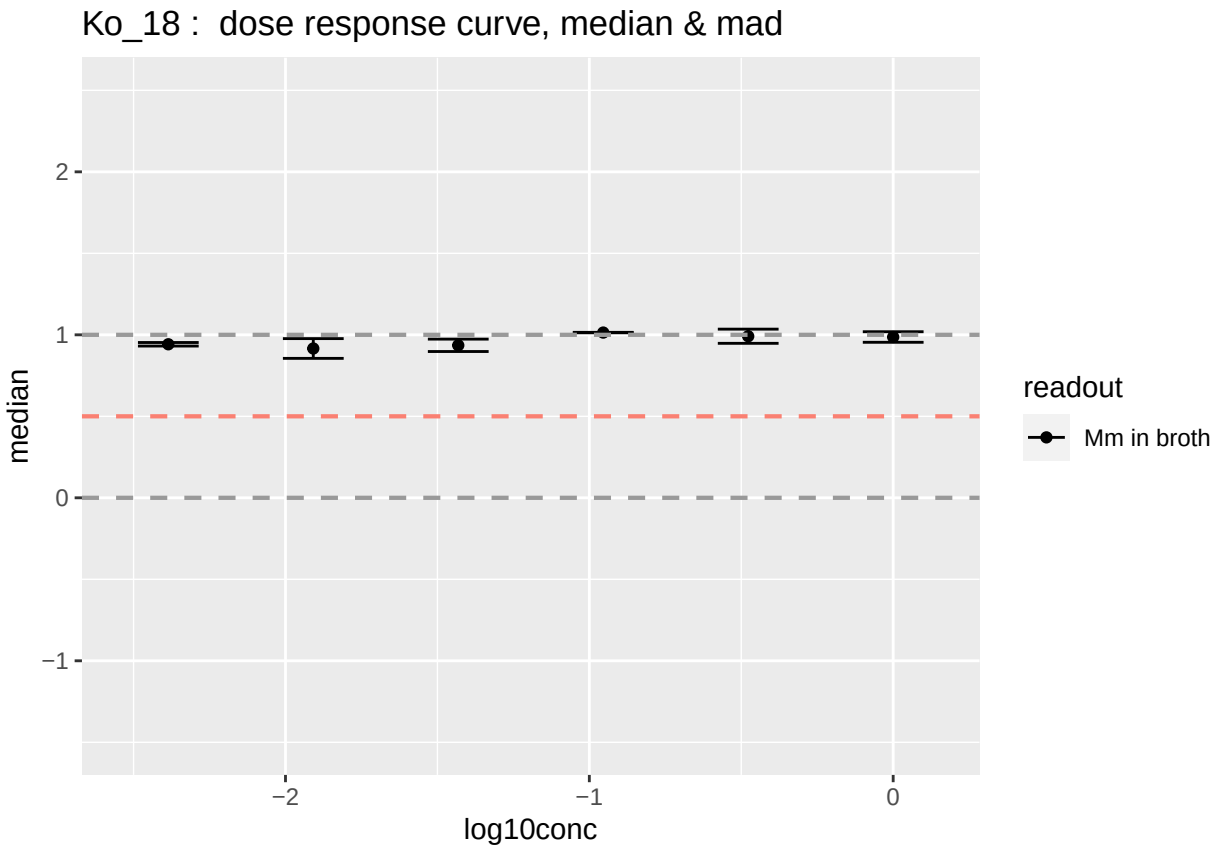

Ko_16 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

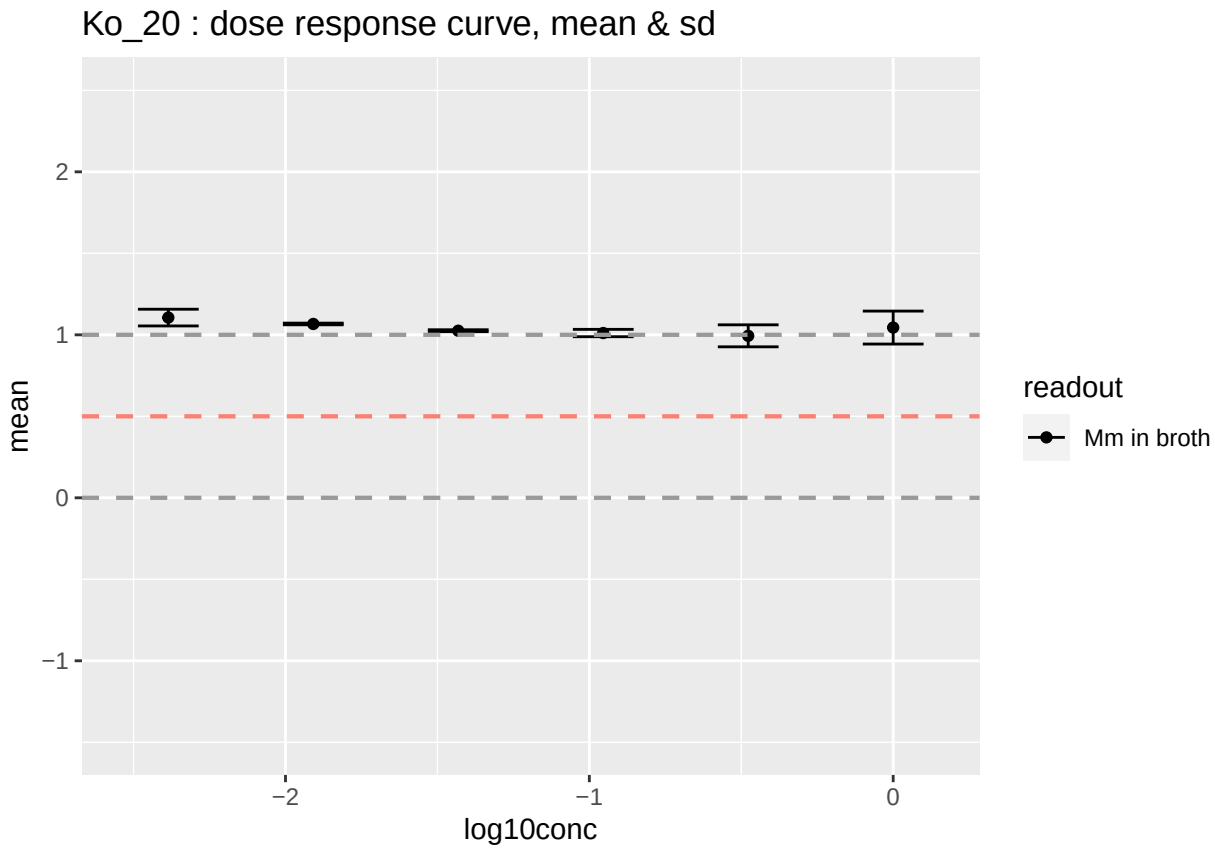

Ko_16 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

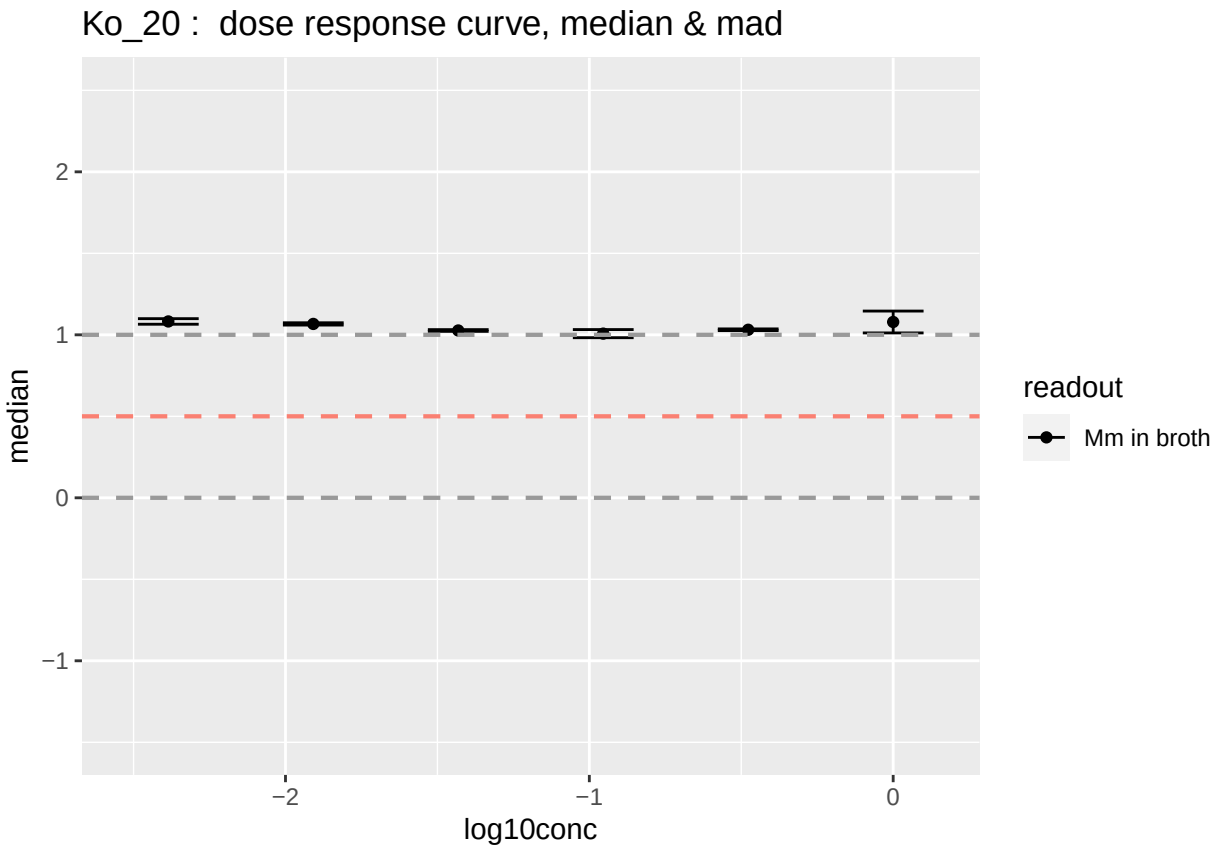

Ko_17 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

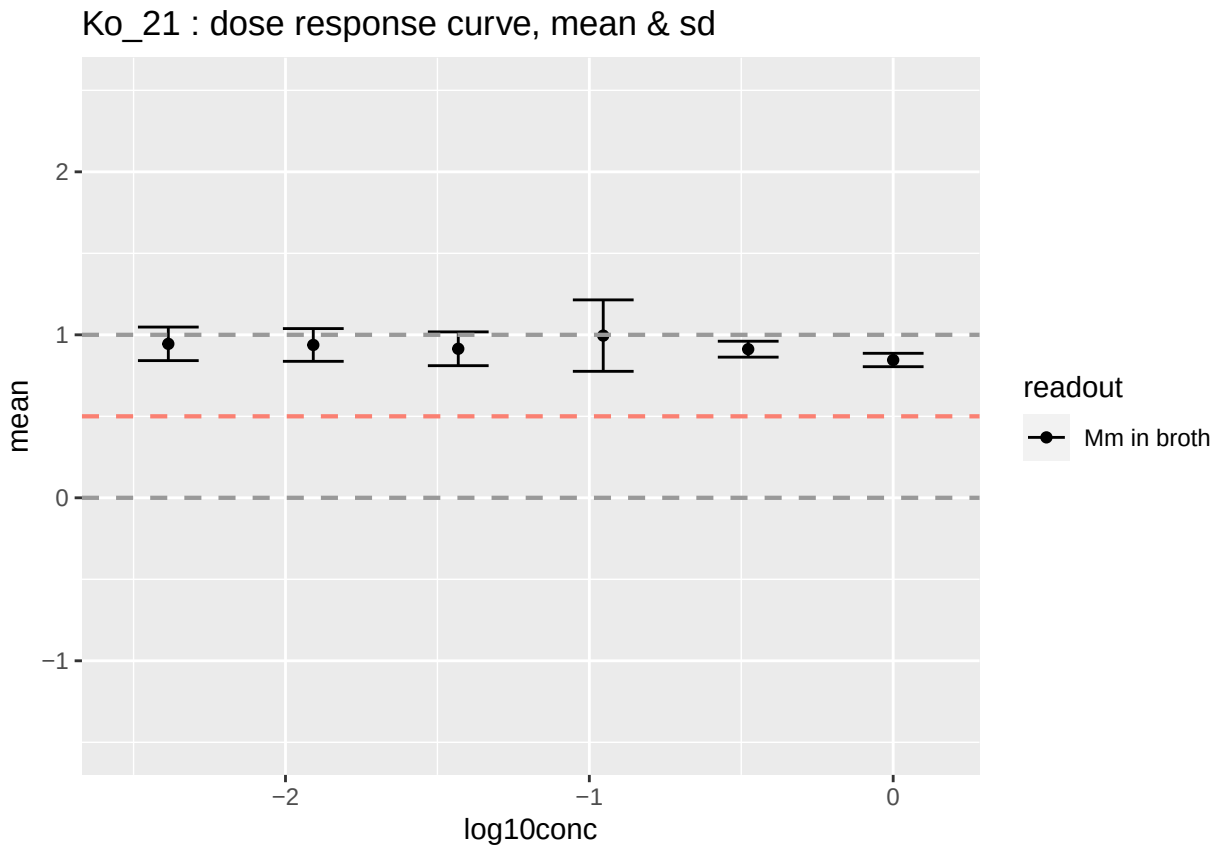

Ko_17 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

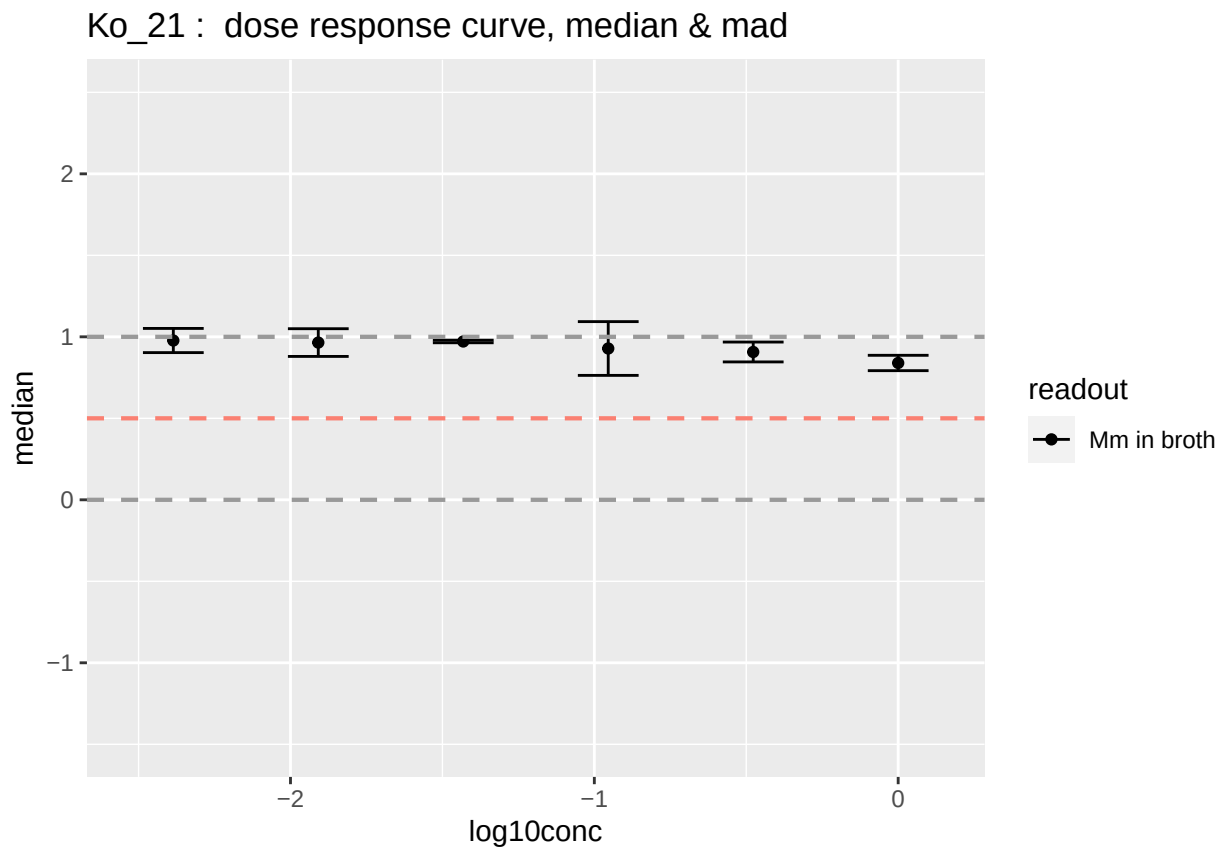

Ko_18 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

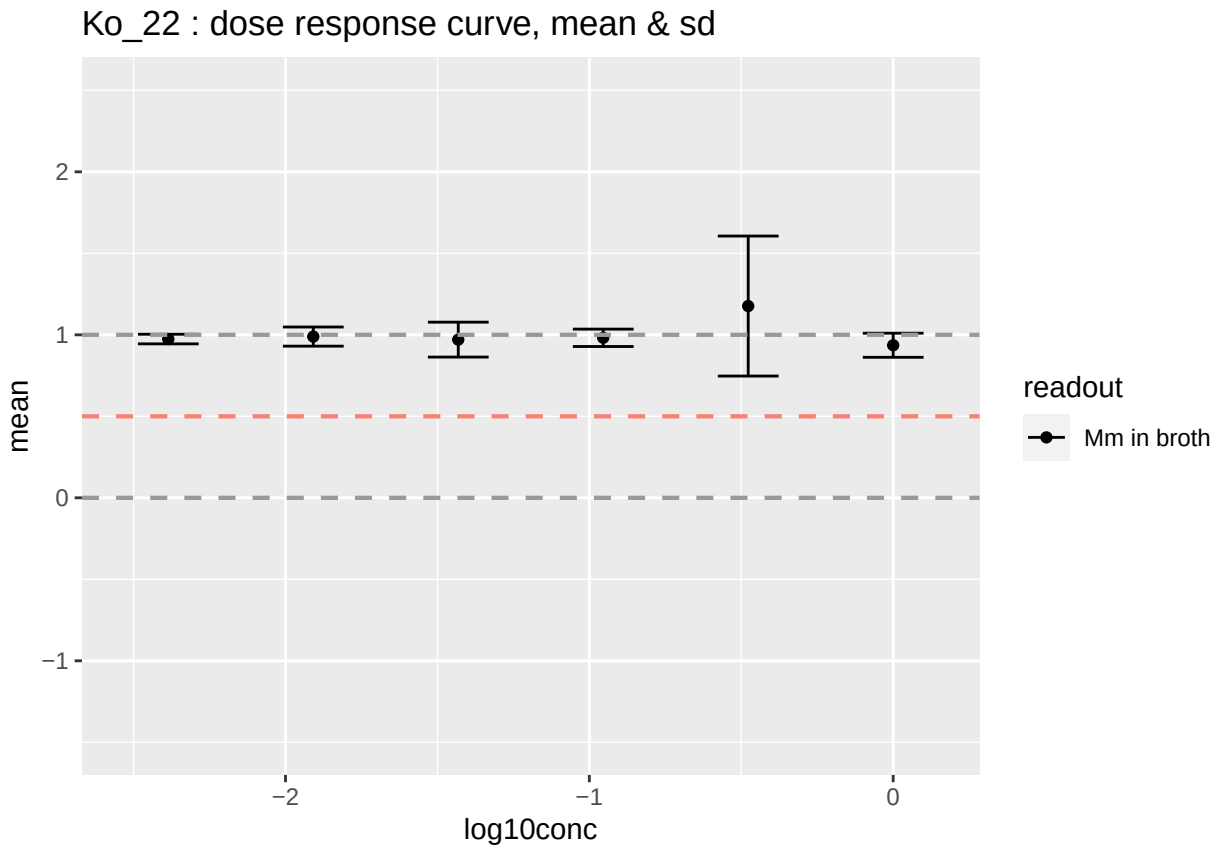

Ko_18 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Ko_20 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

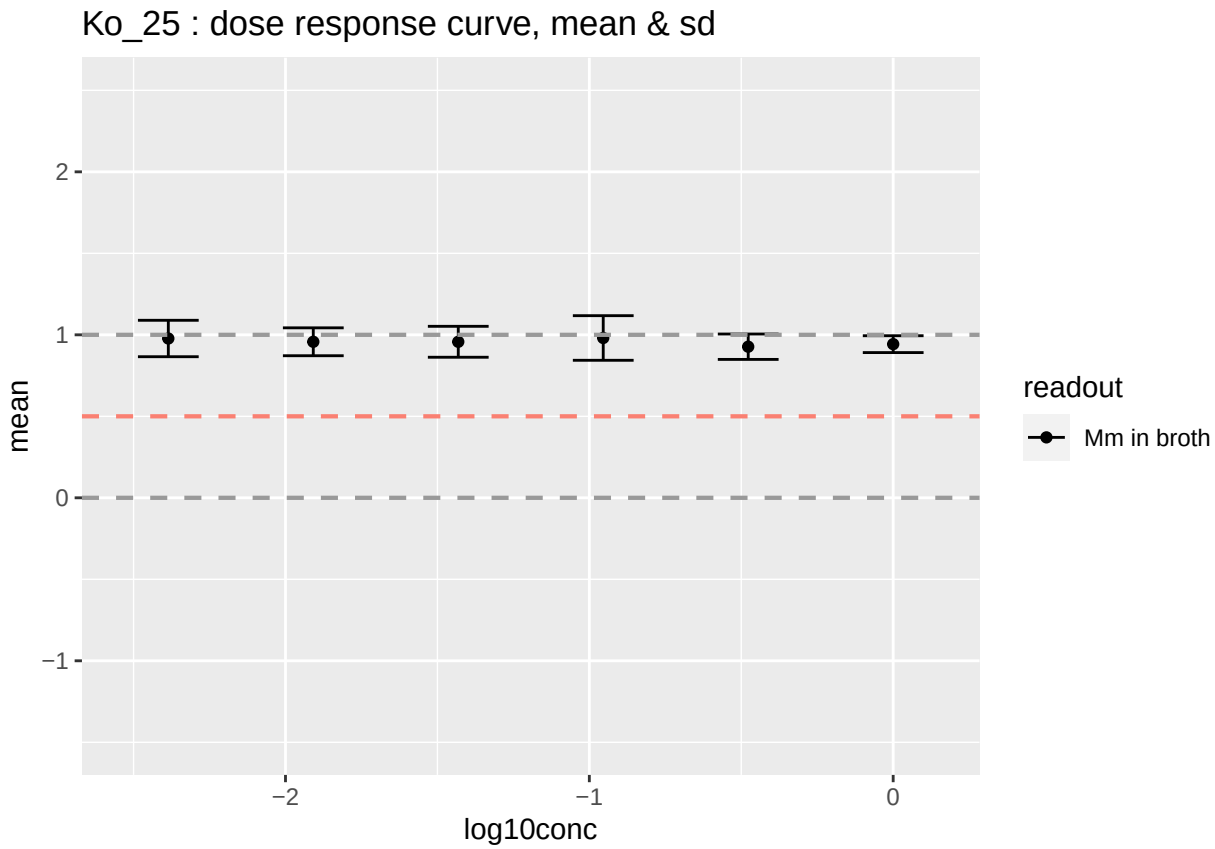

Ko_20 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

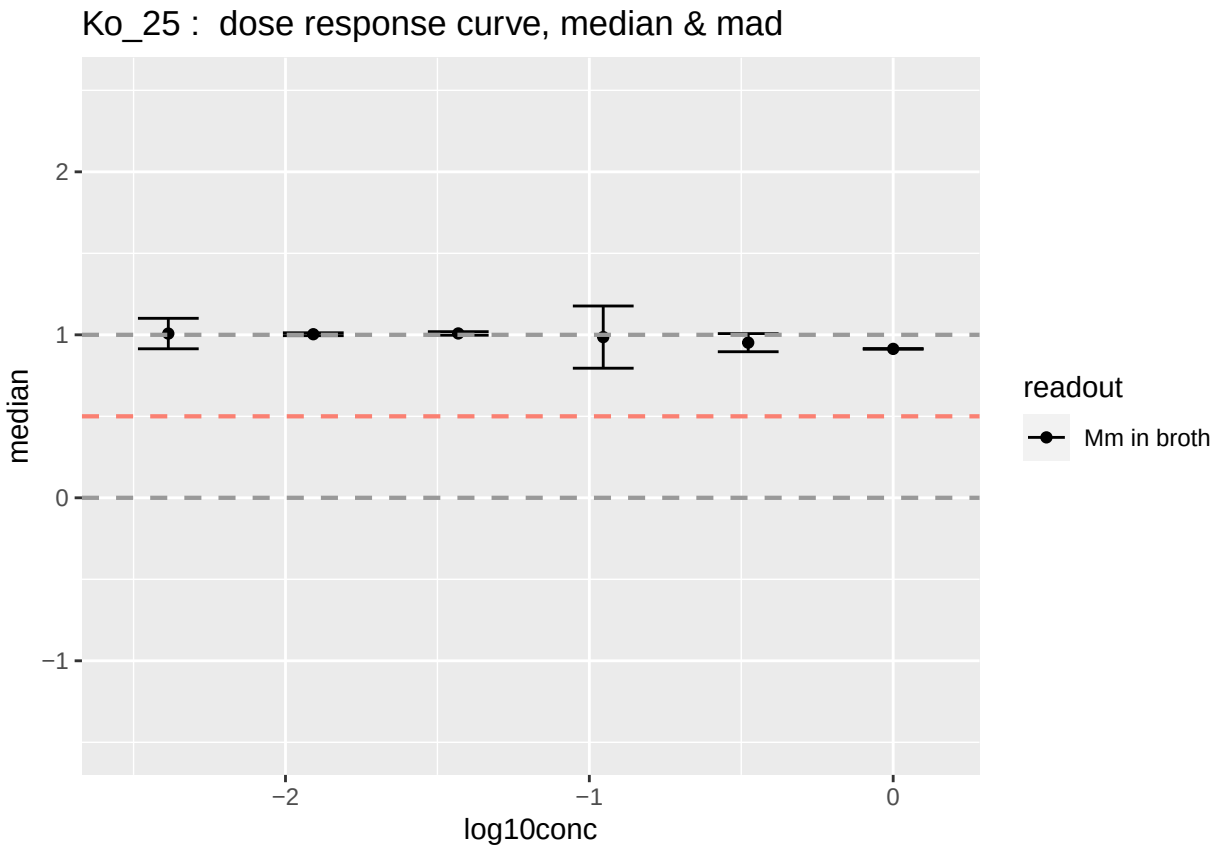

Ko_21 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Ko_21 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

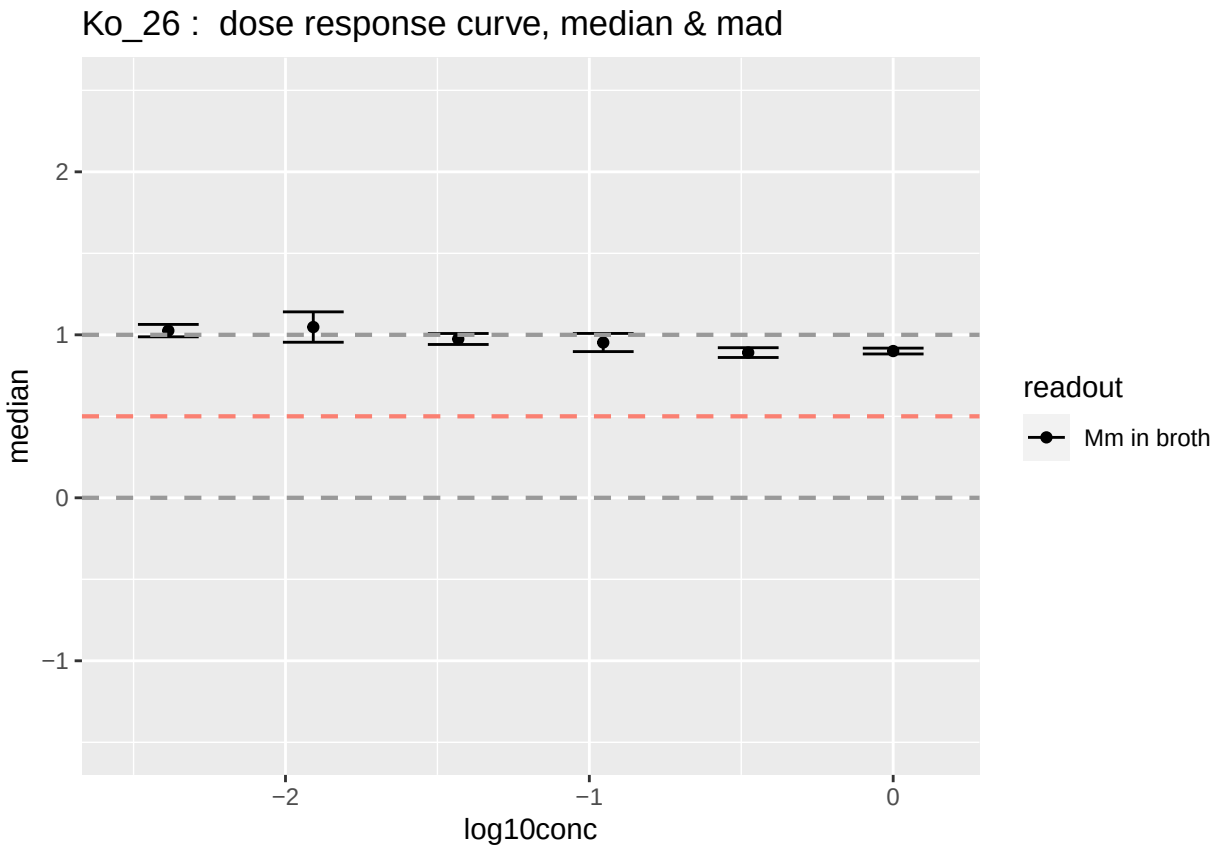

Ko_22 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

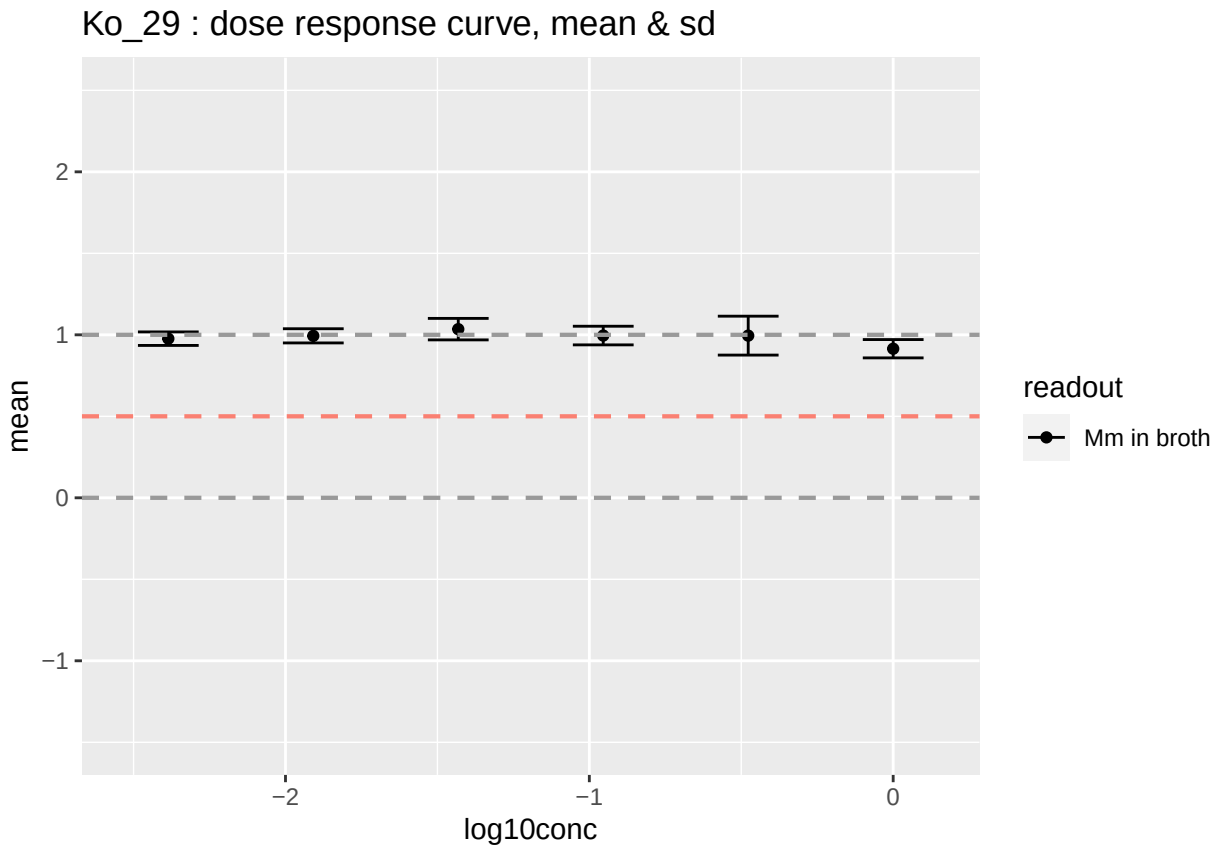

Ko_22 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

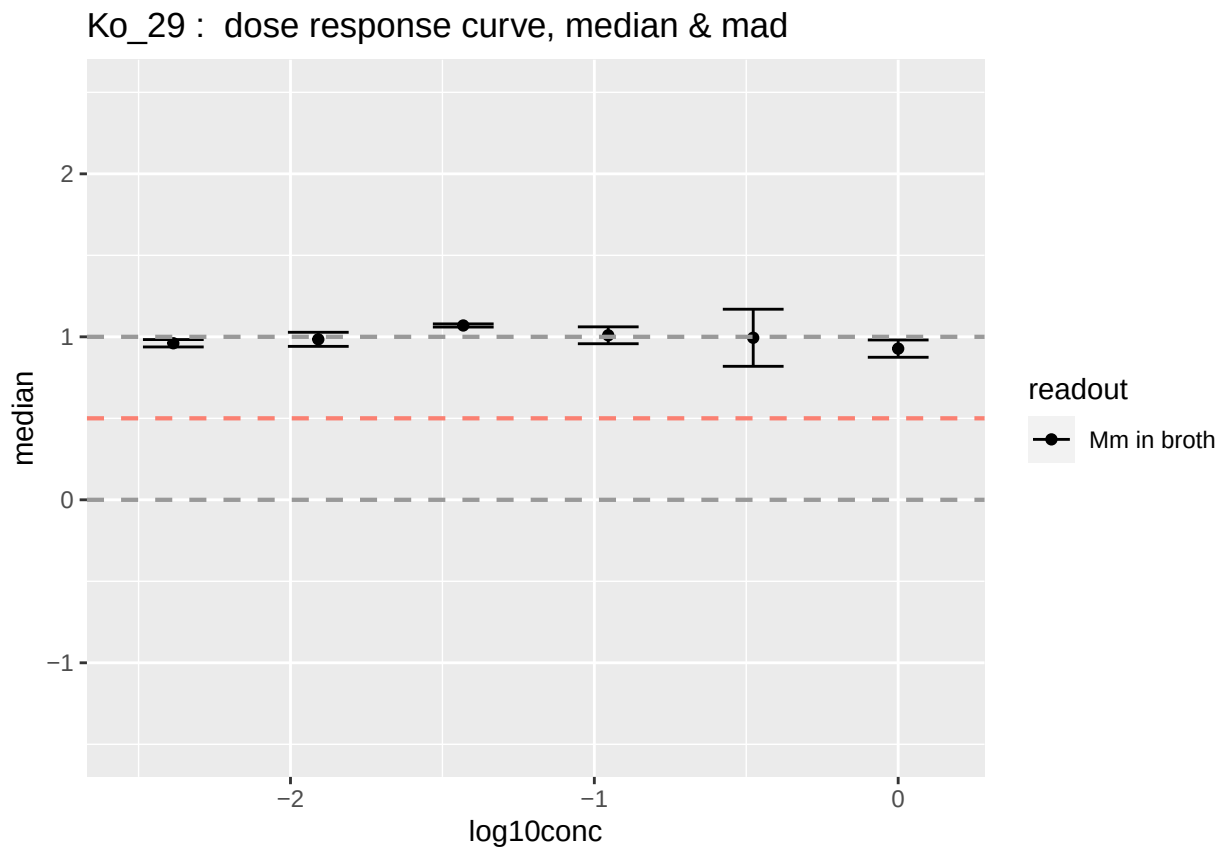

Ko_25 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

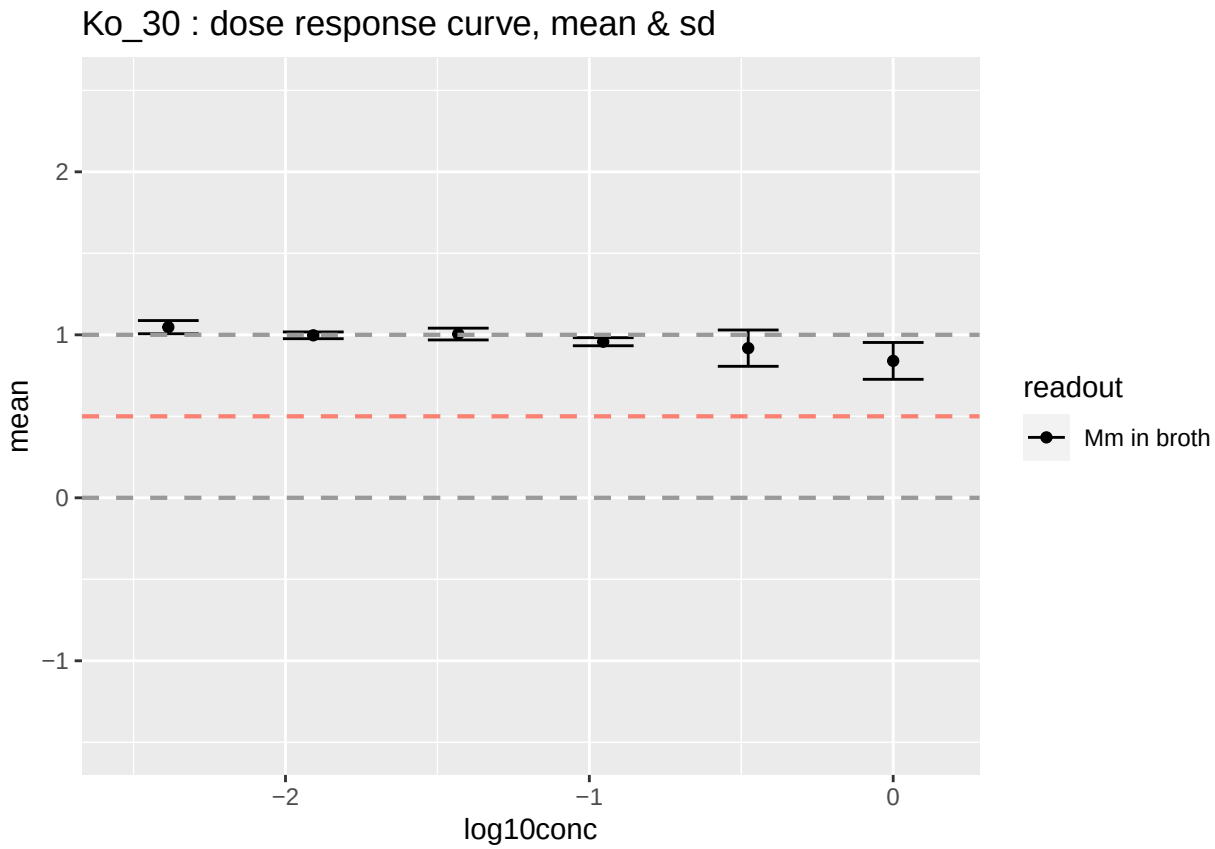

Ko_25 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

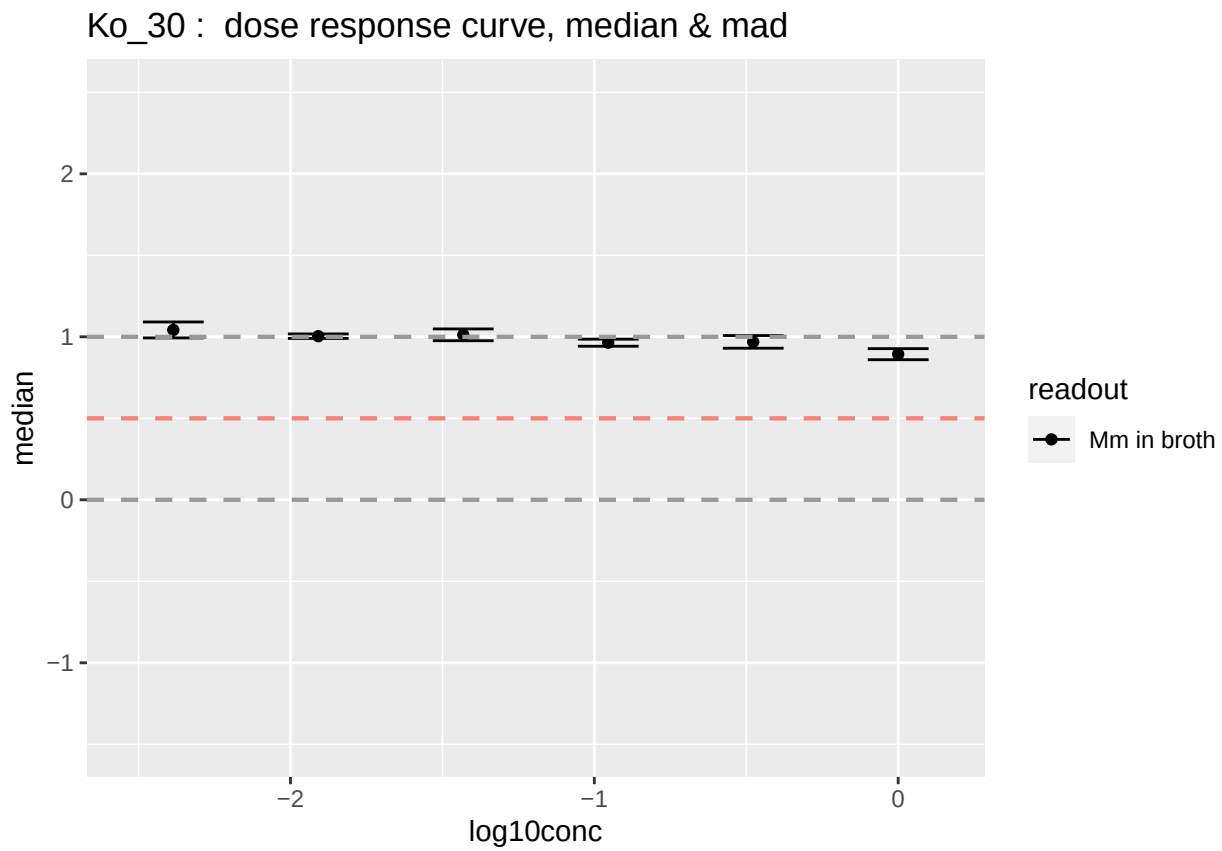

Ko_26 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

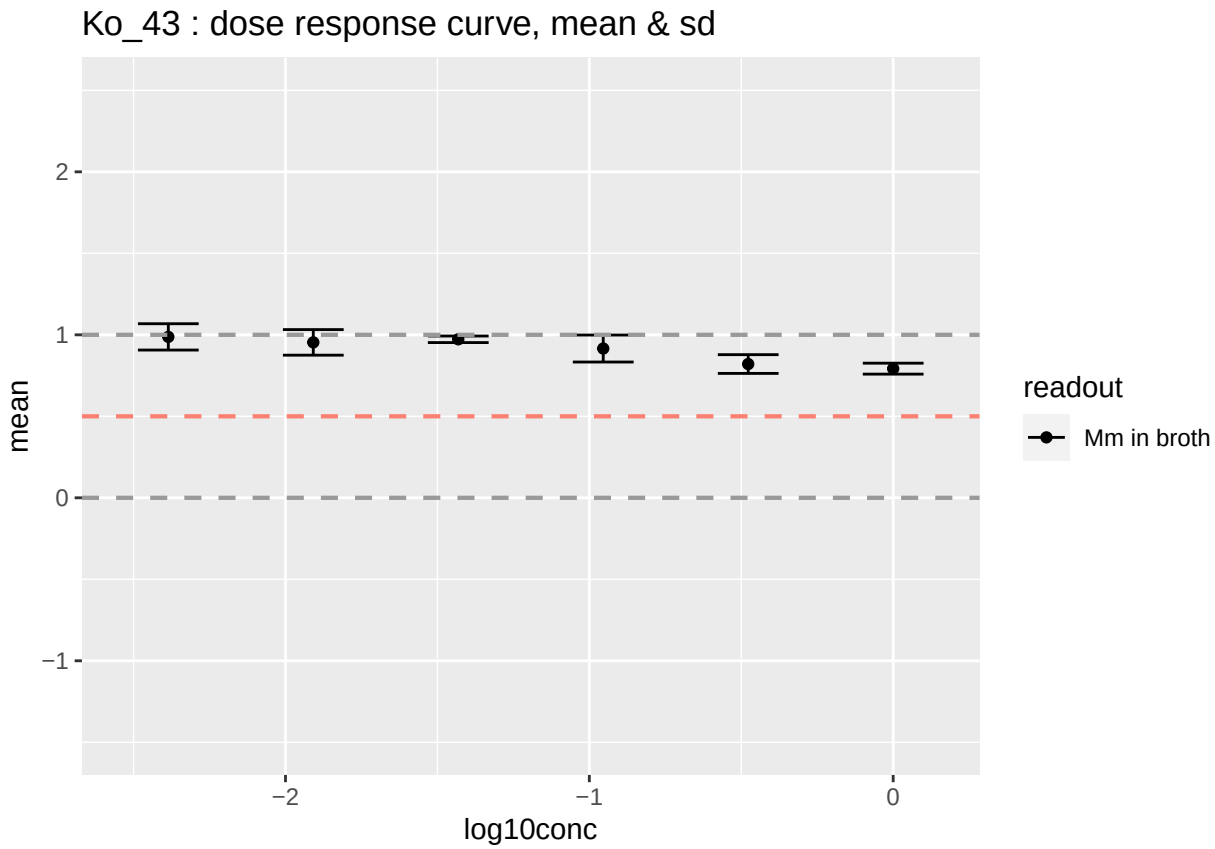

Ko_26 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

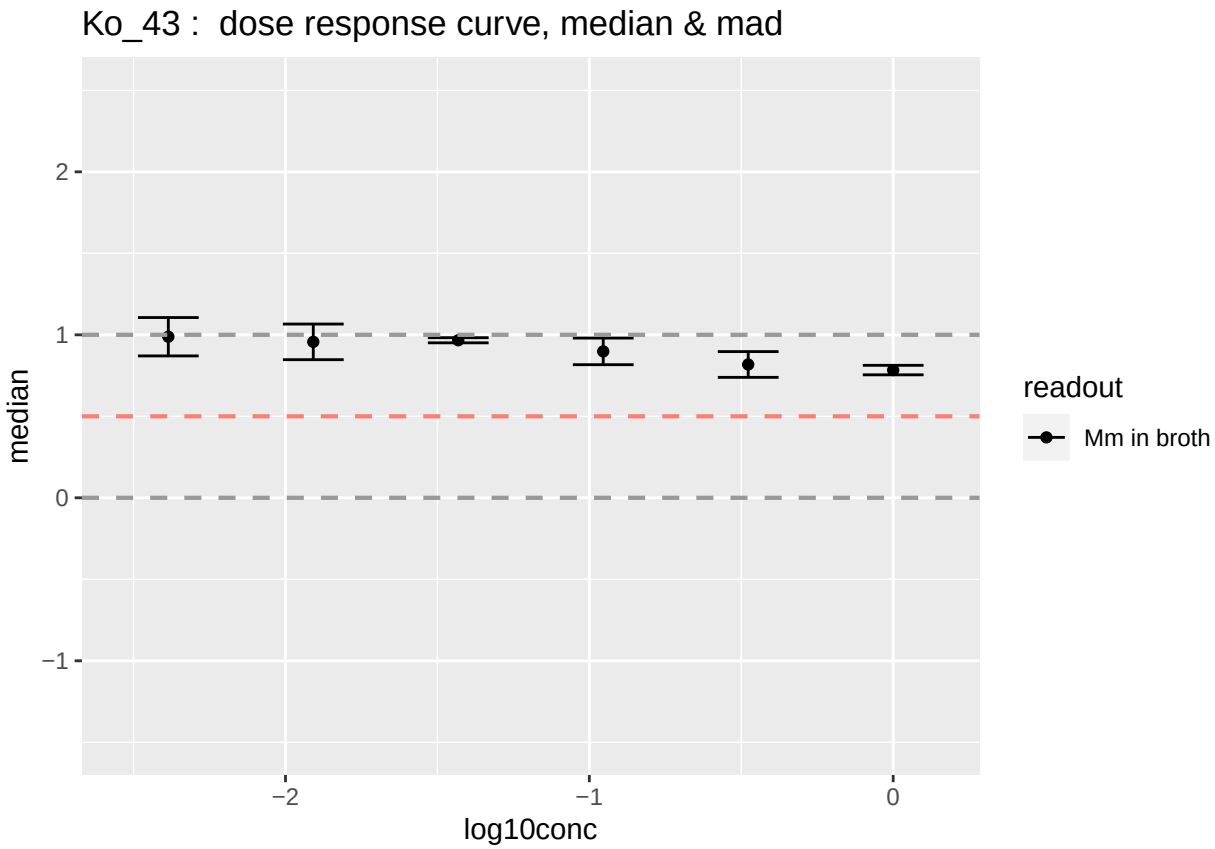

Ko_29 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

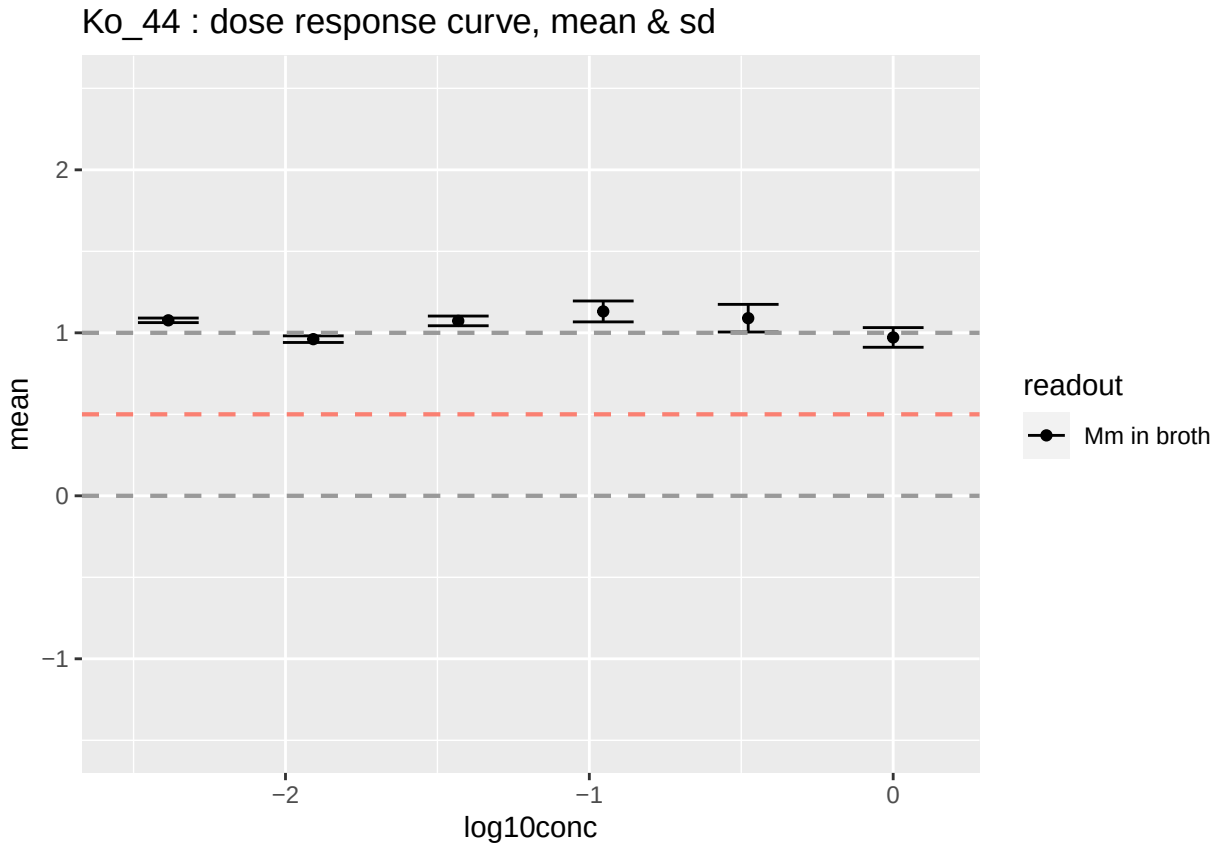

Ko_29 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

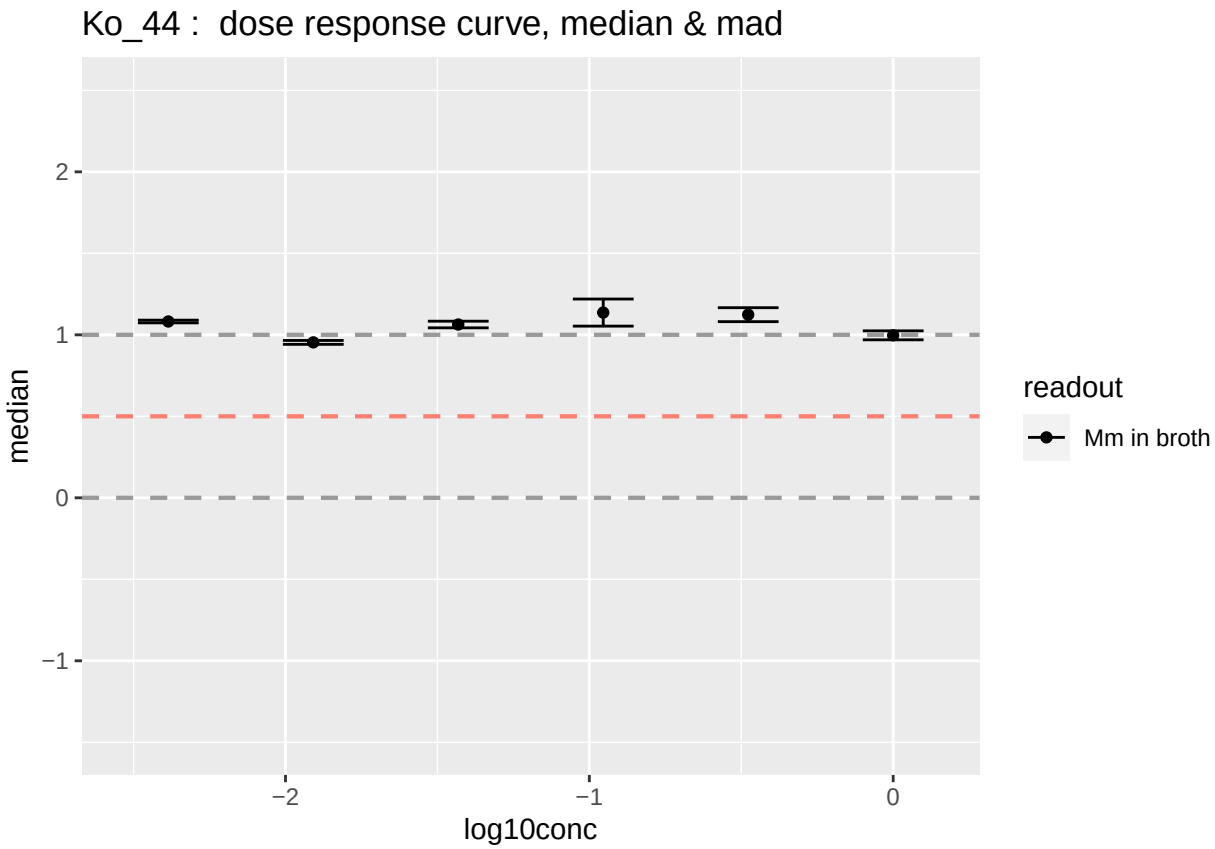

Ko_30 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

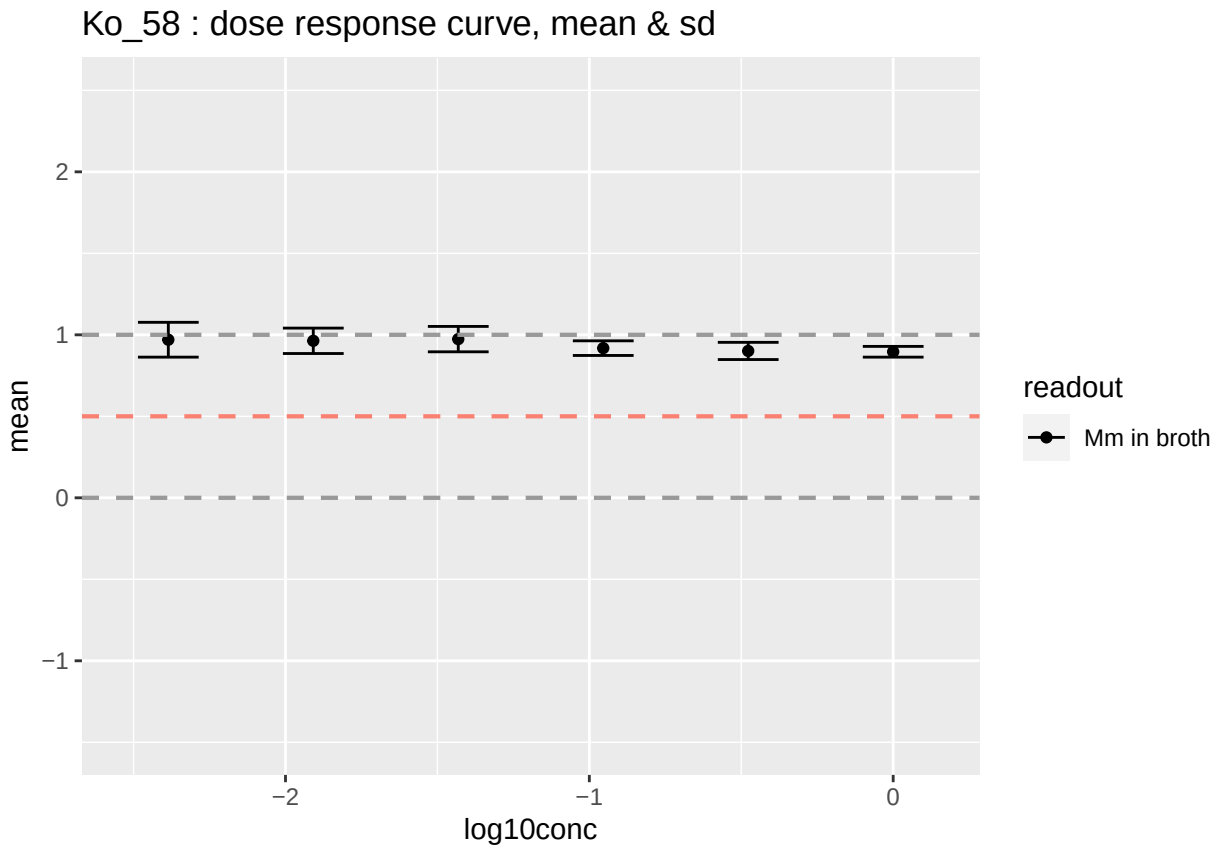

Ko_30 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

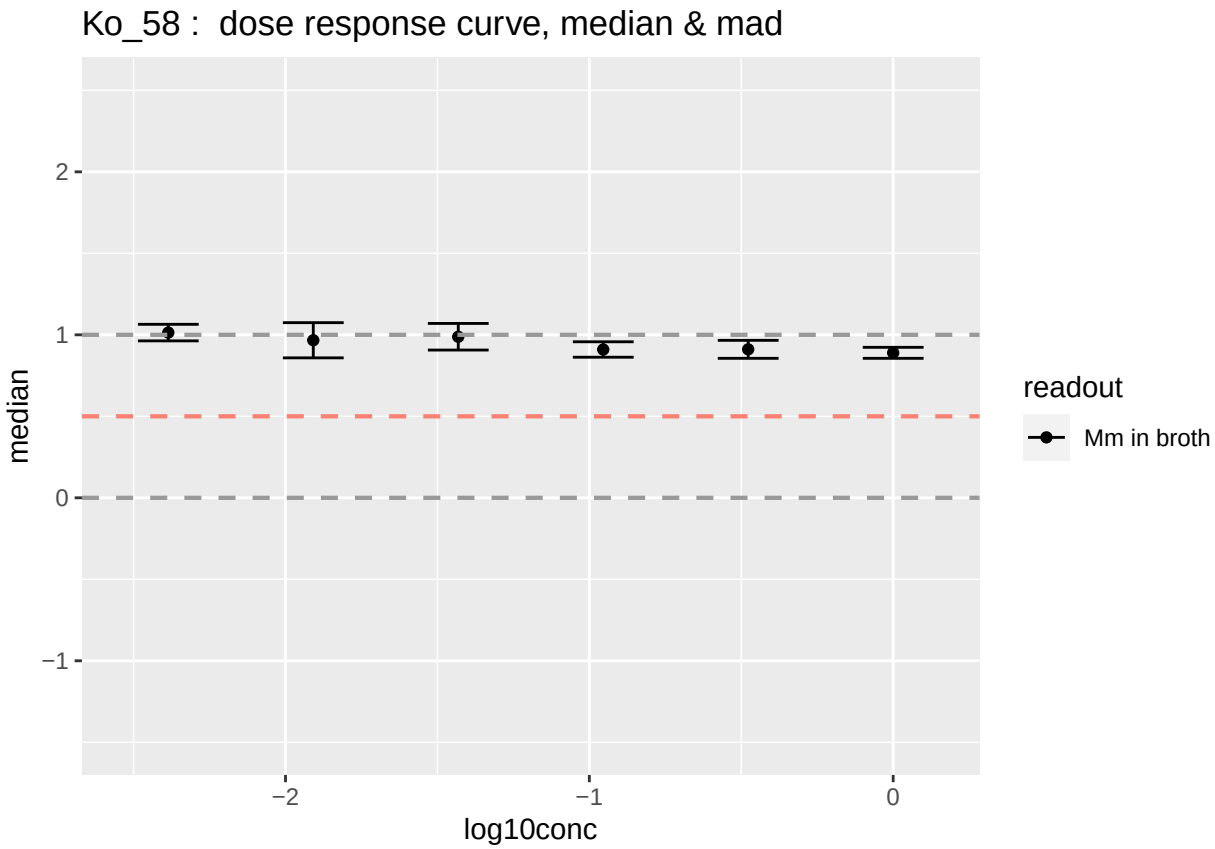

Ko_43 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

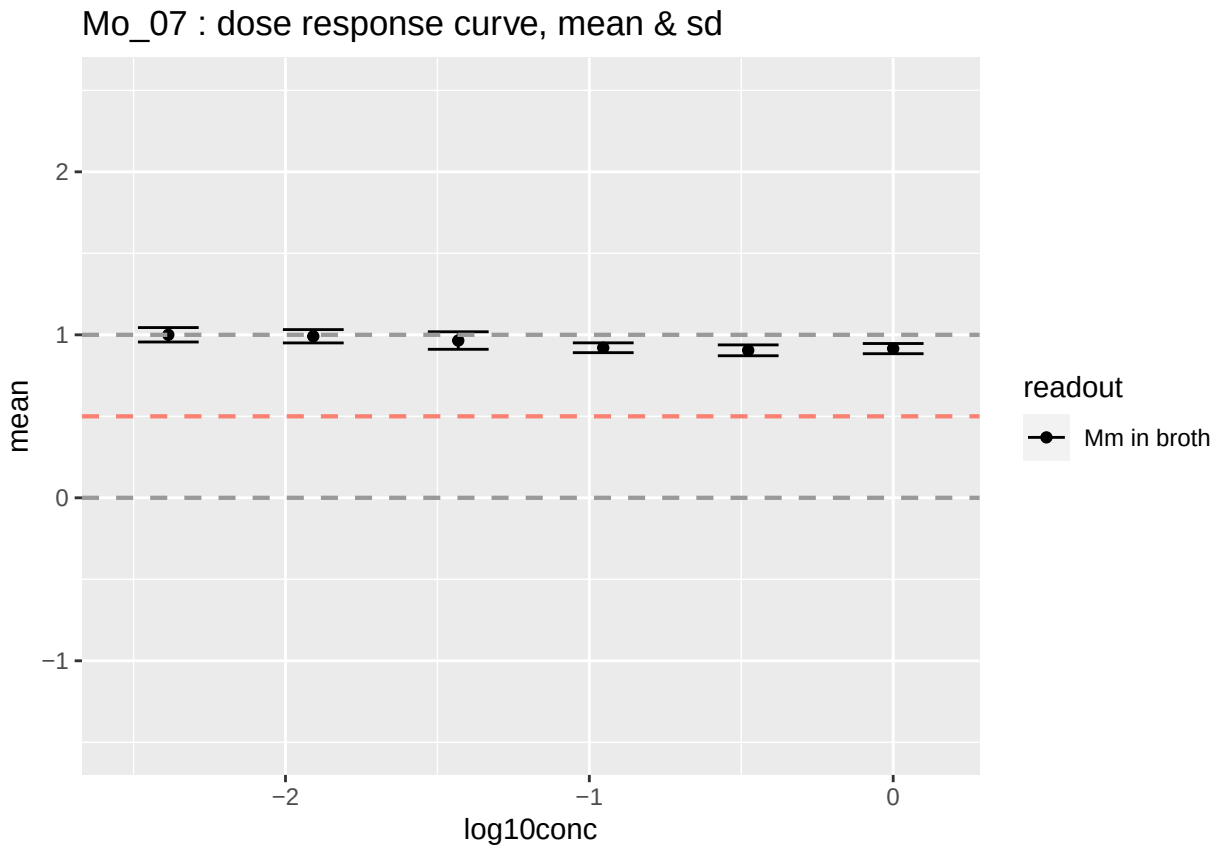

Ko_43 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

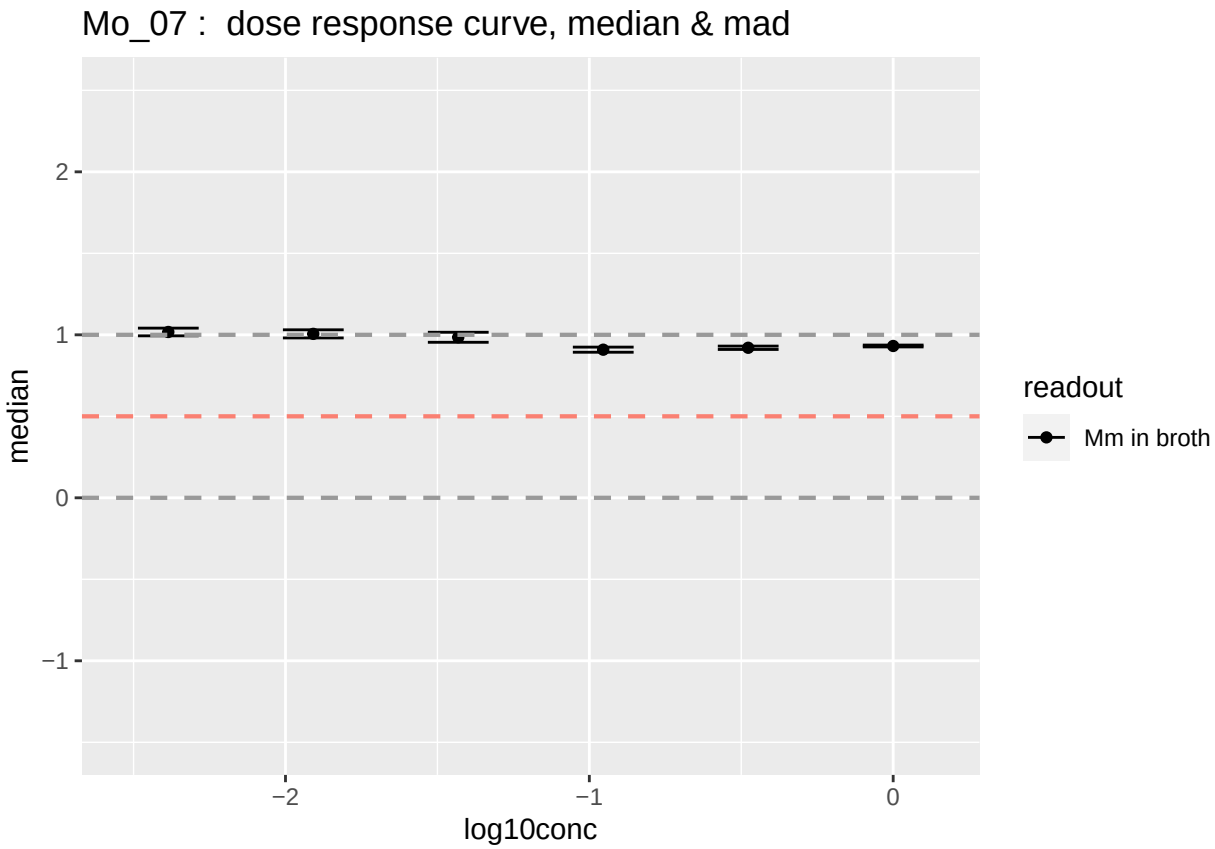

Ko_44 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

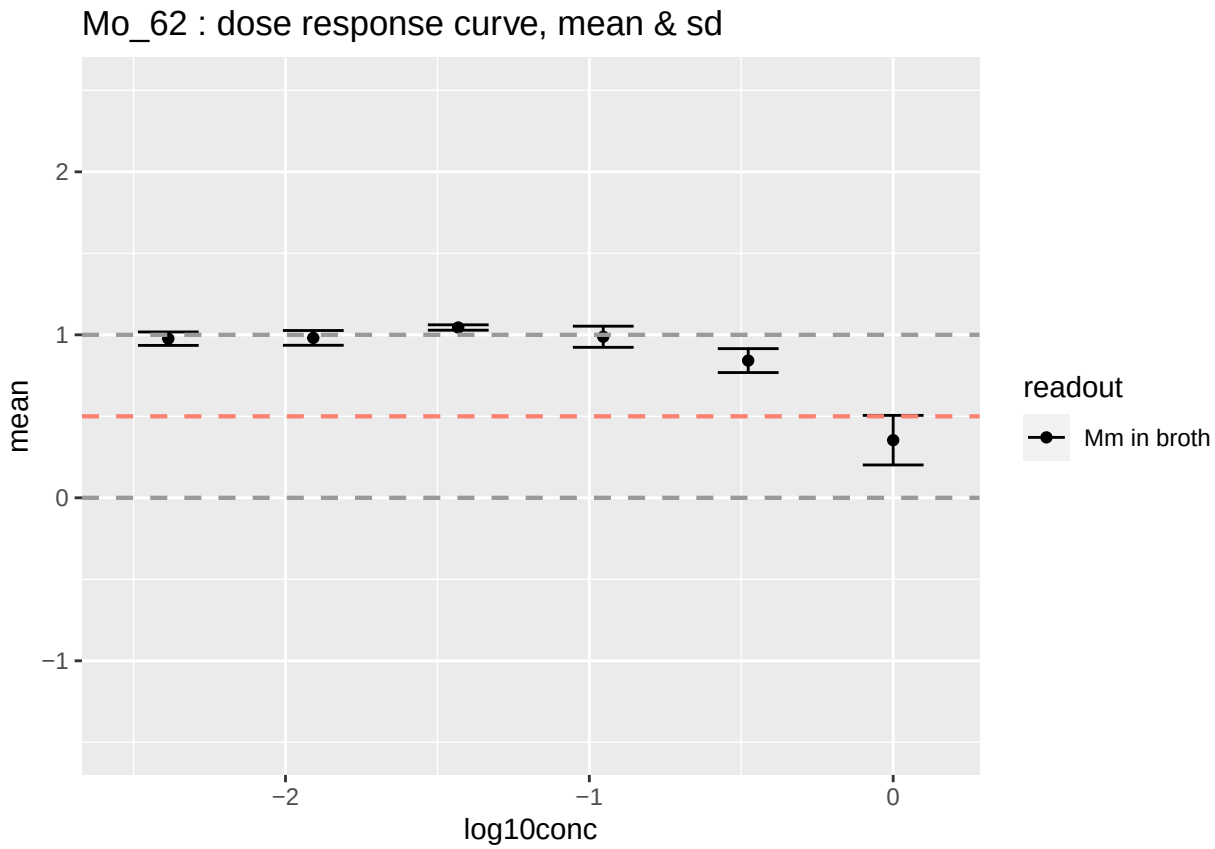

Ko_44 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

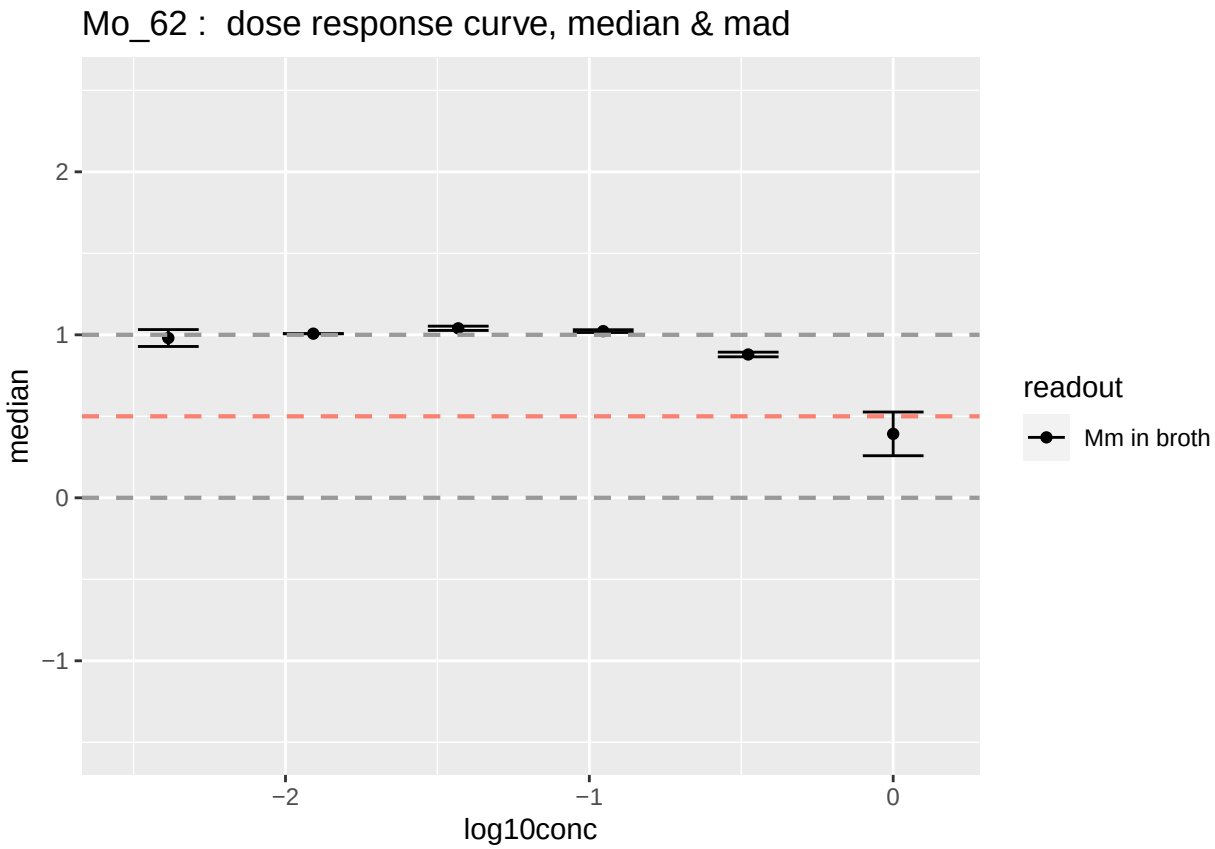

Ko_58 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

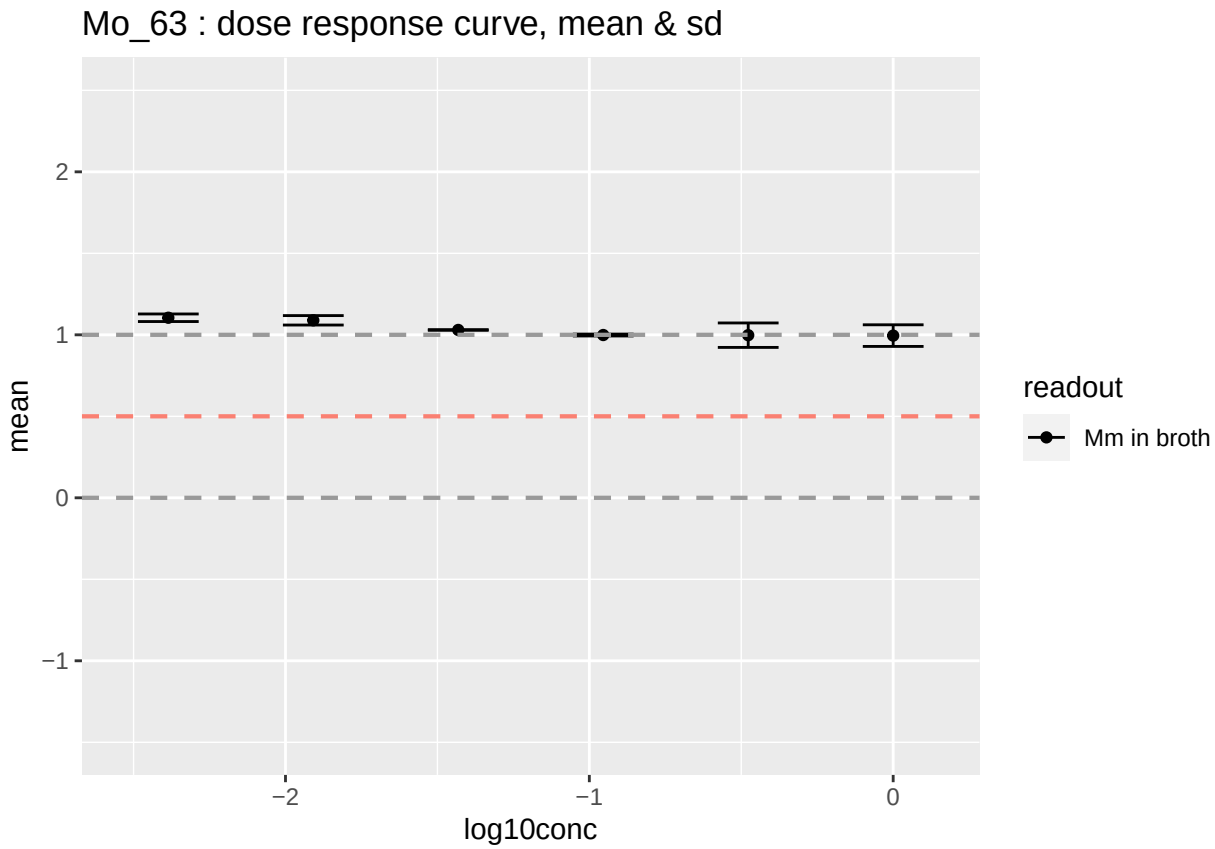

Ko_58 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

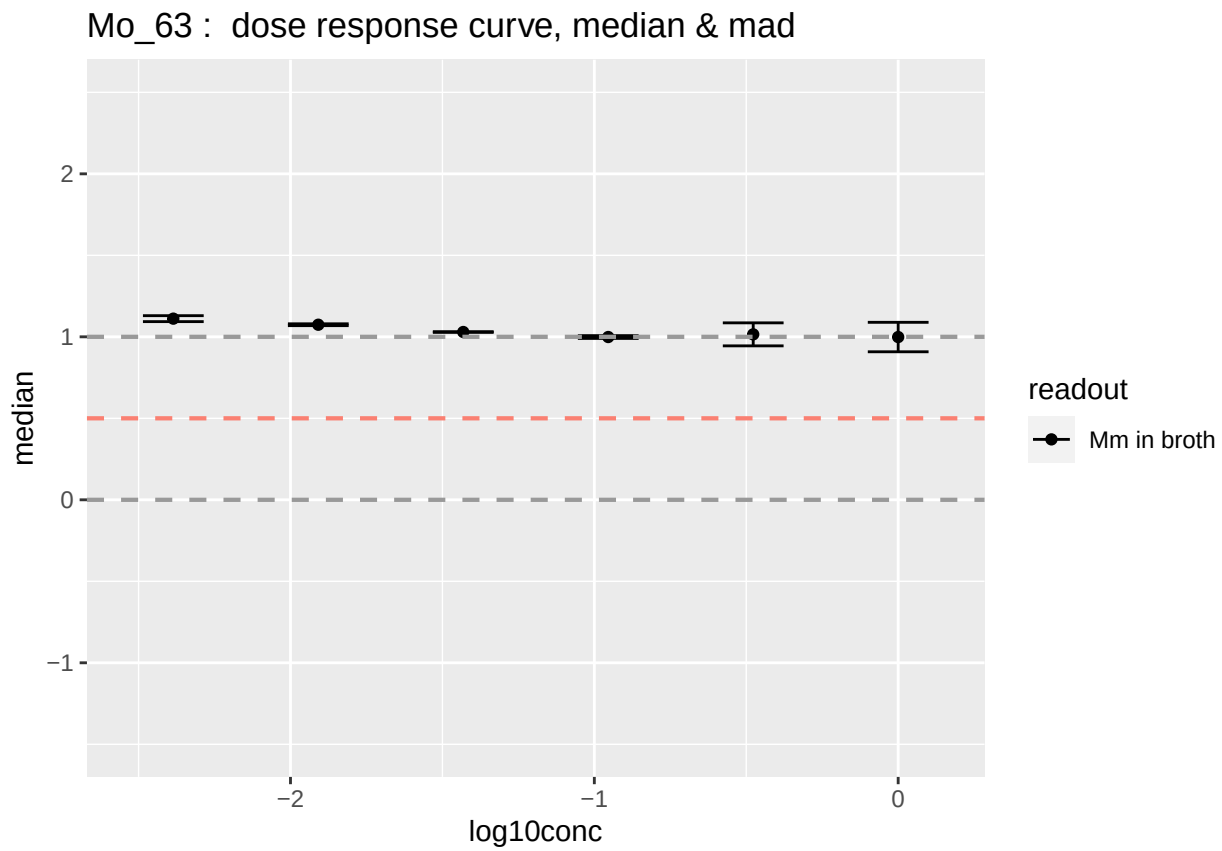

Mo_07 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

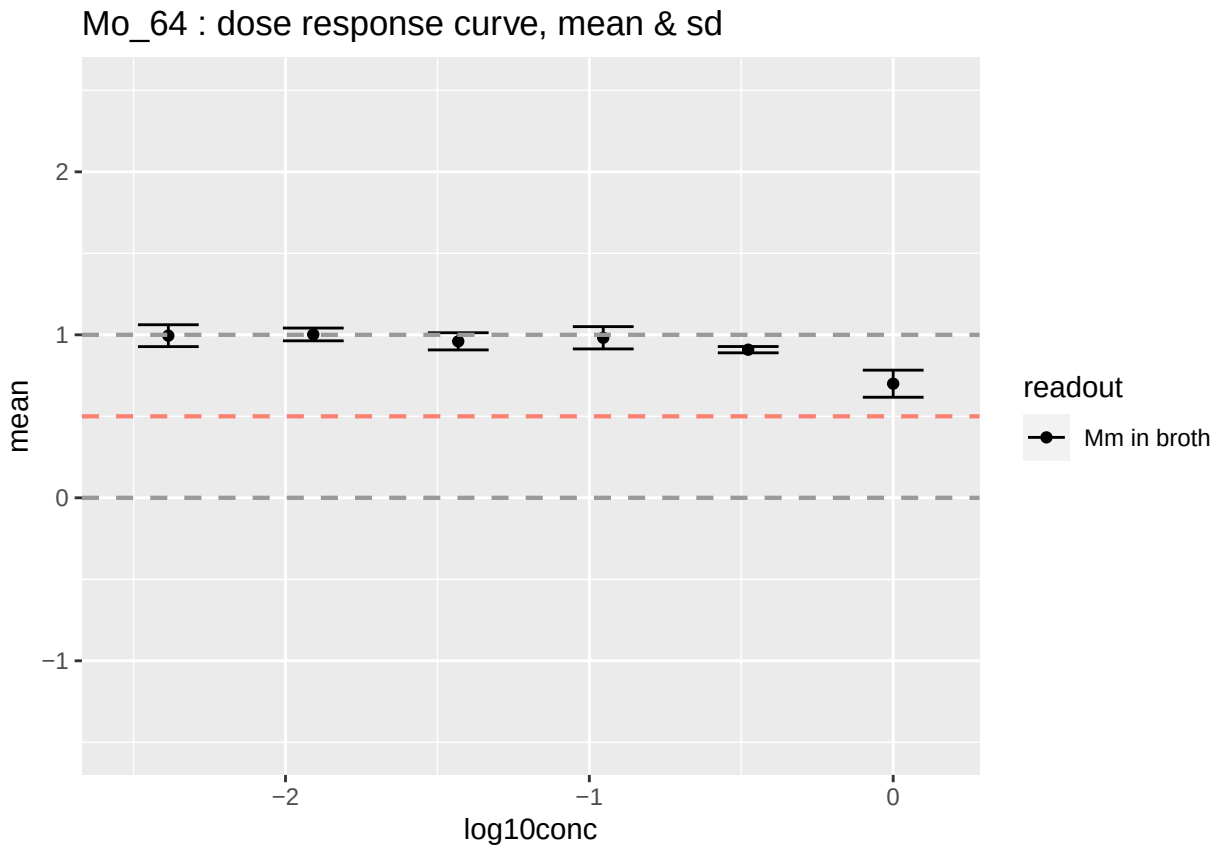

Mo_07 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

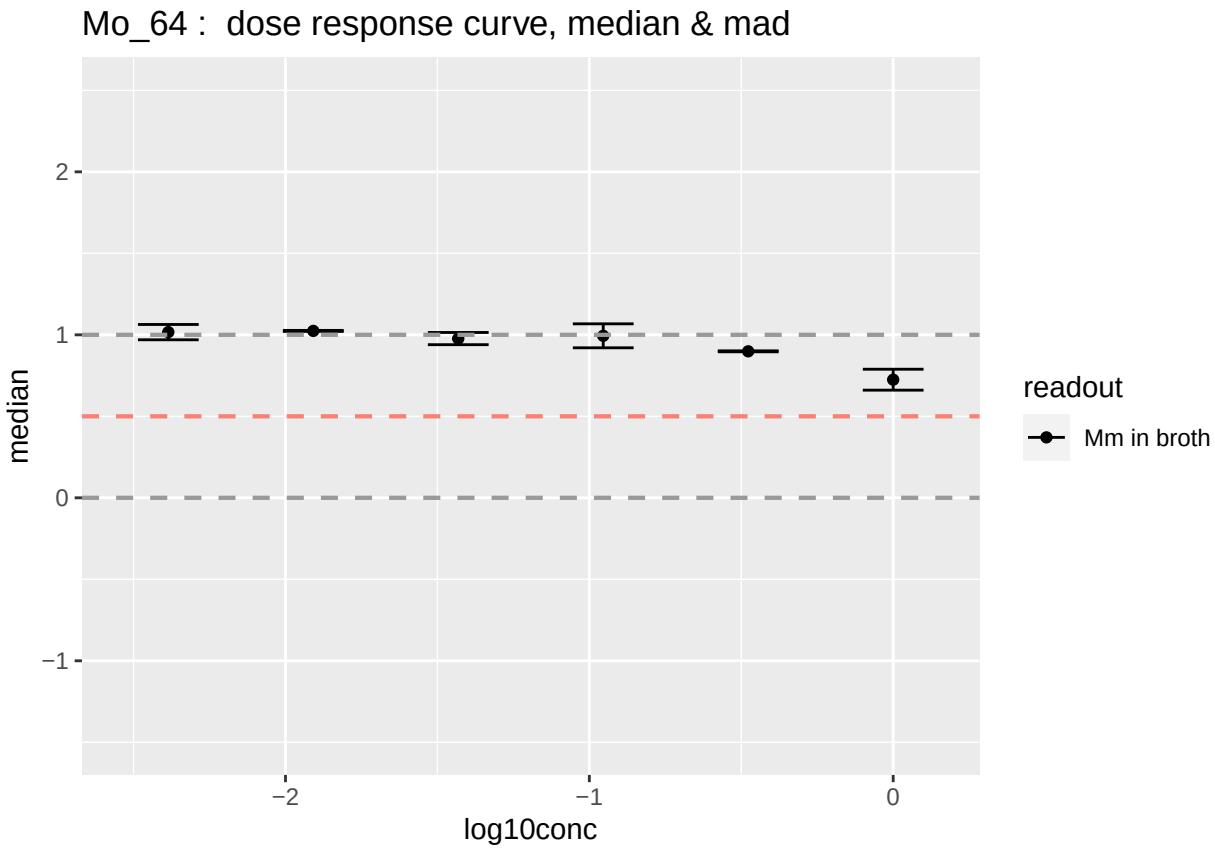

Mo_62 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Mo_62 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

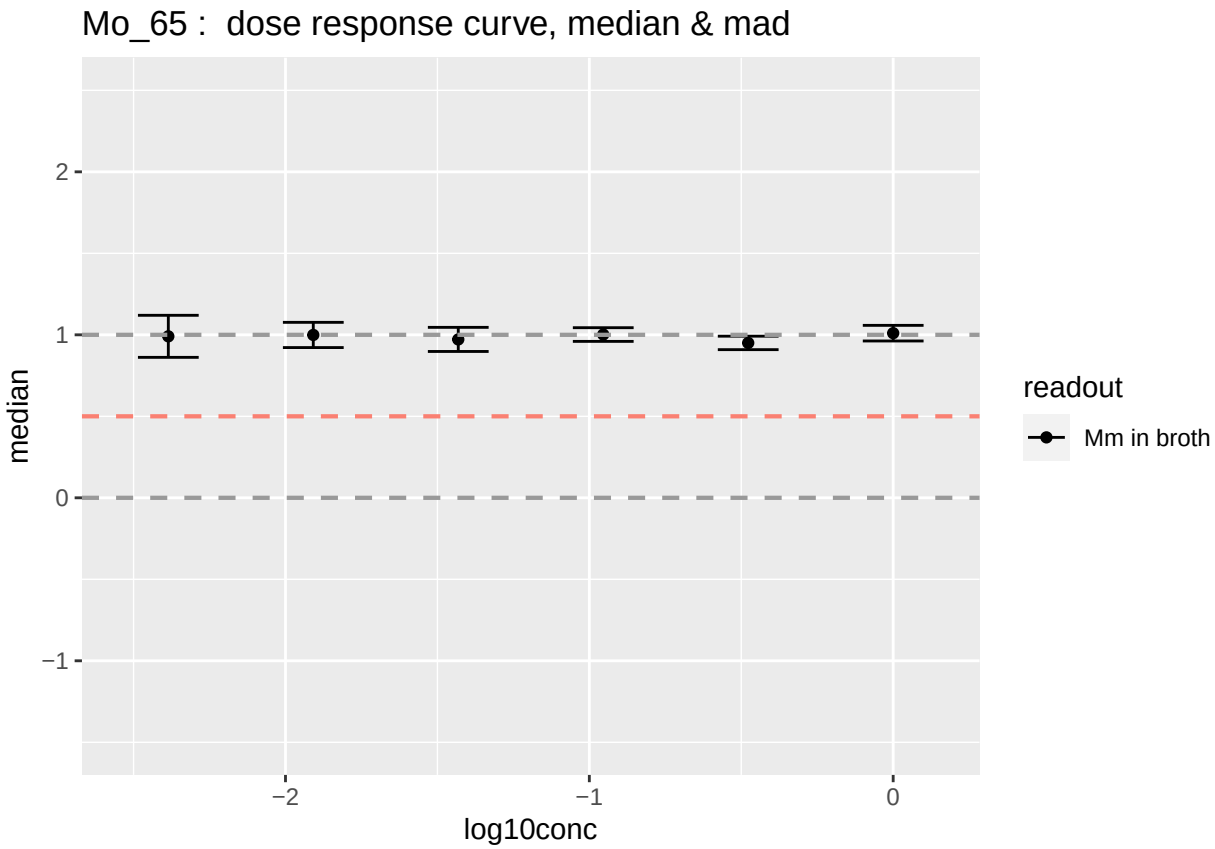

Mo_63 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

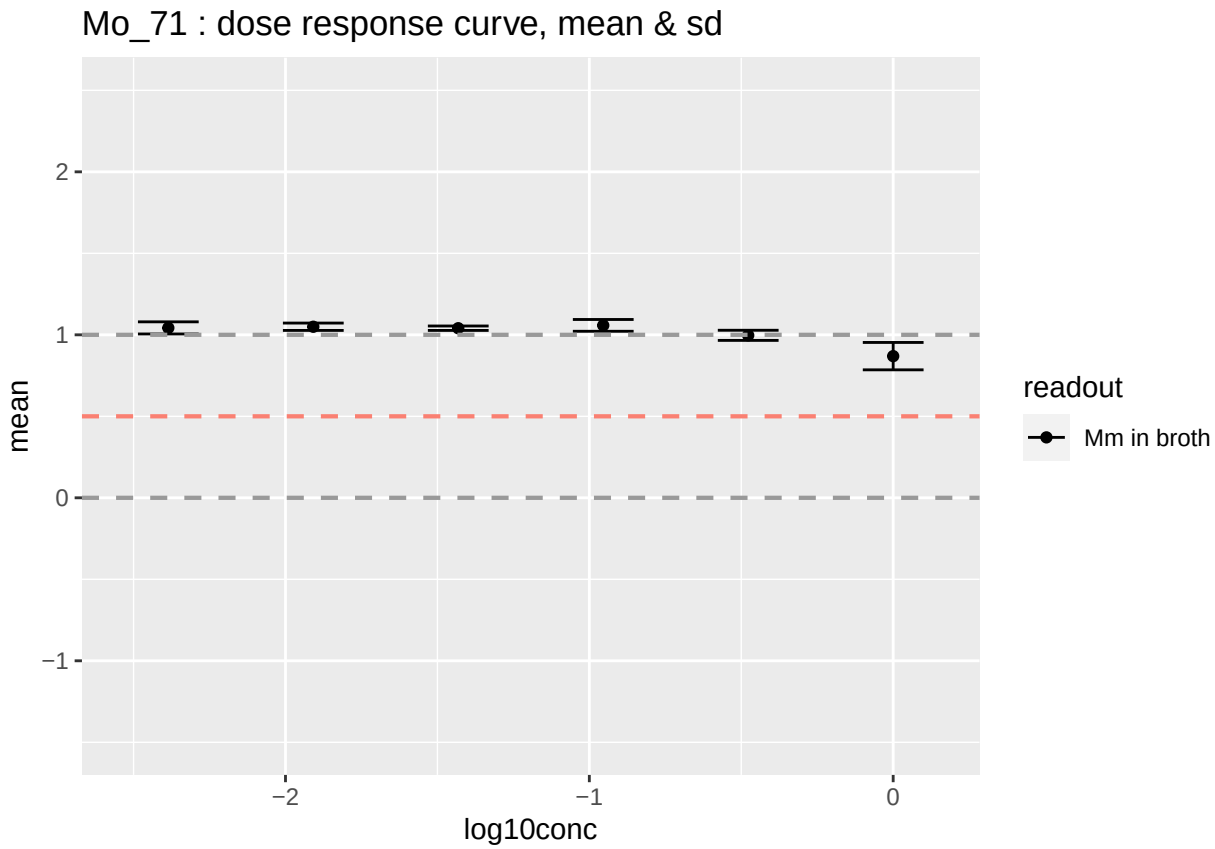

Mo_63 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

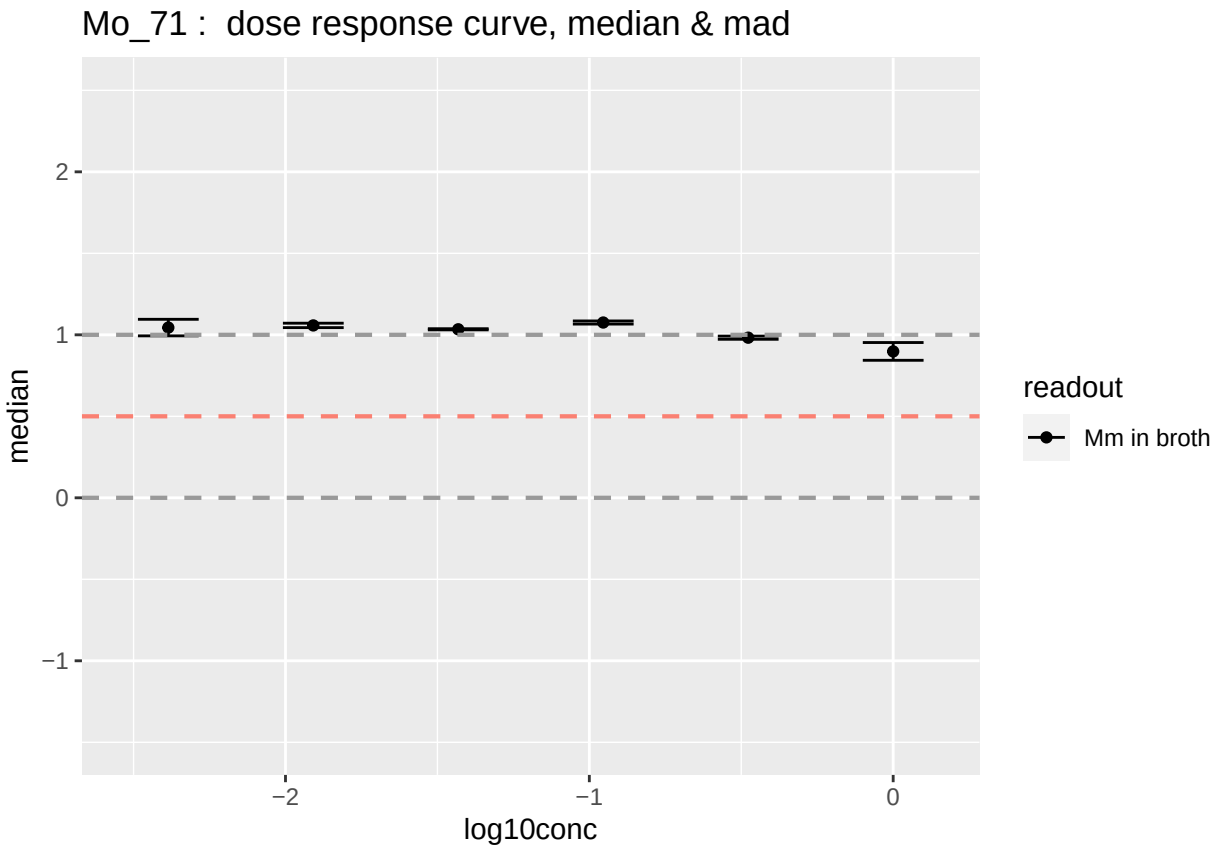

Mo_64 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

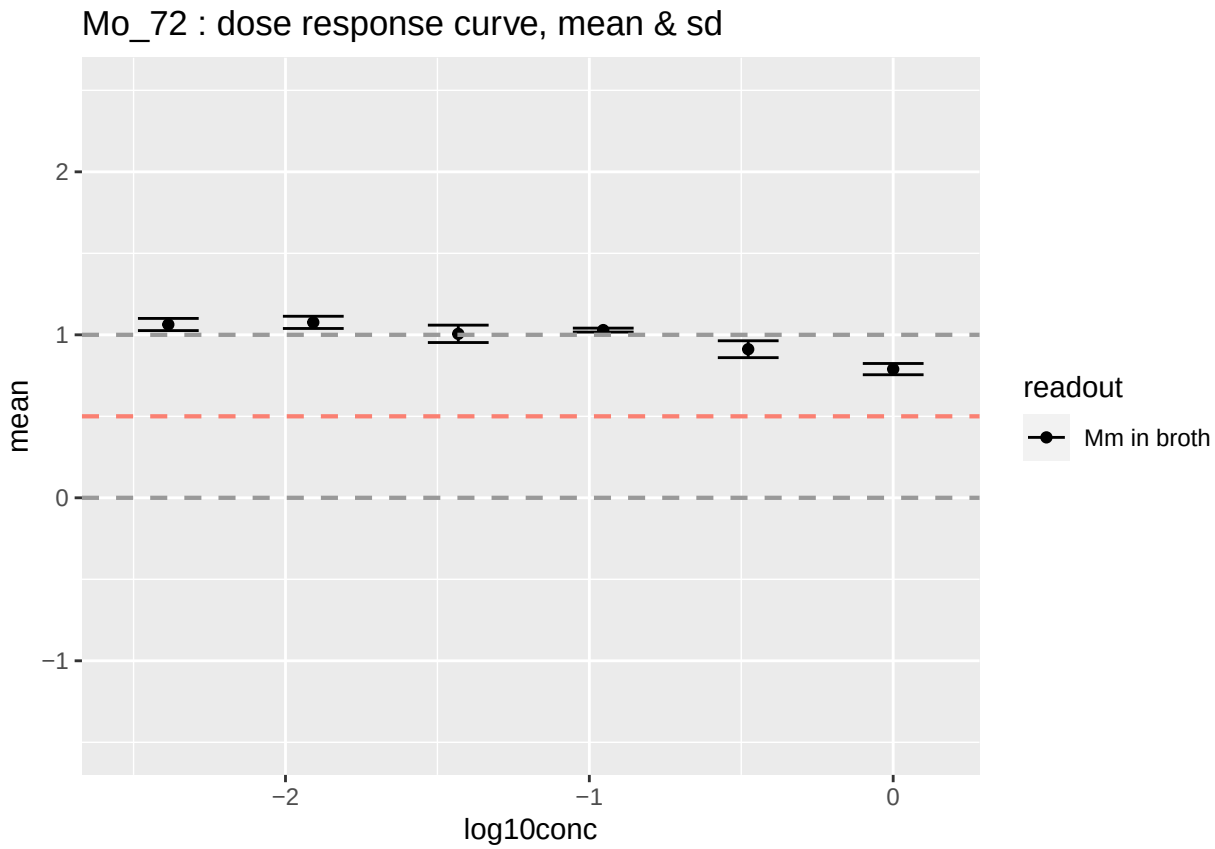

Mo_64 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

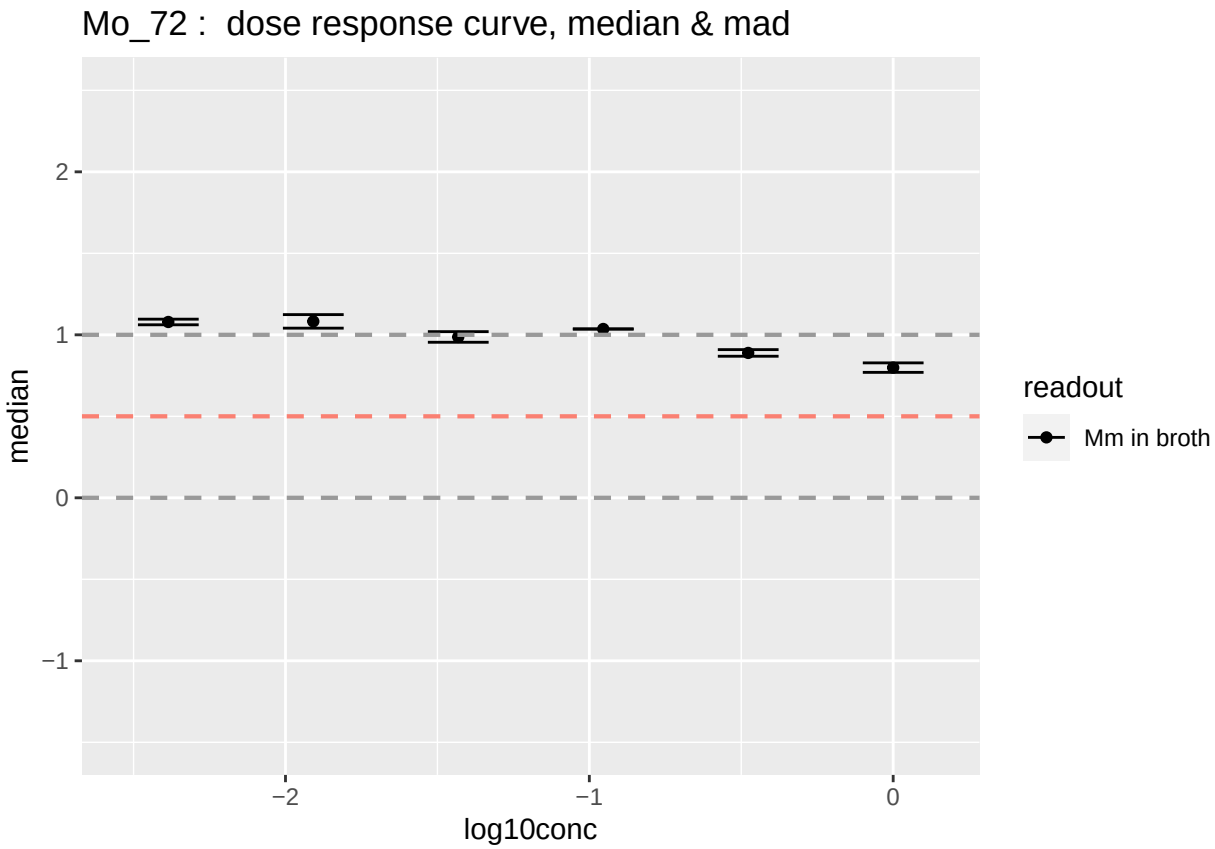

Mo_65 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

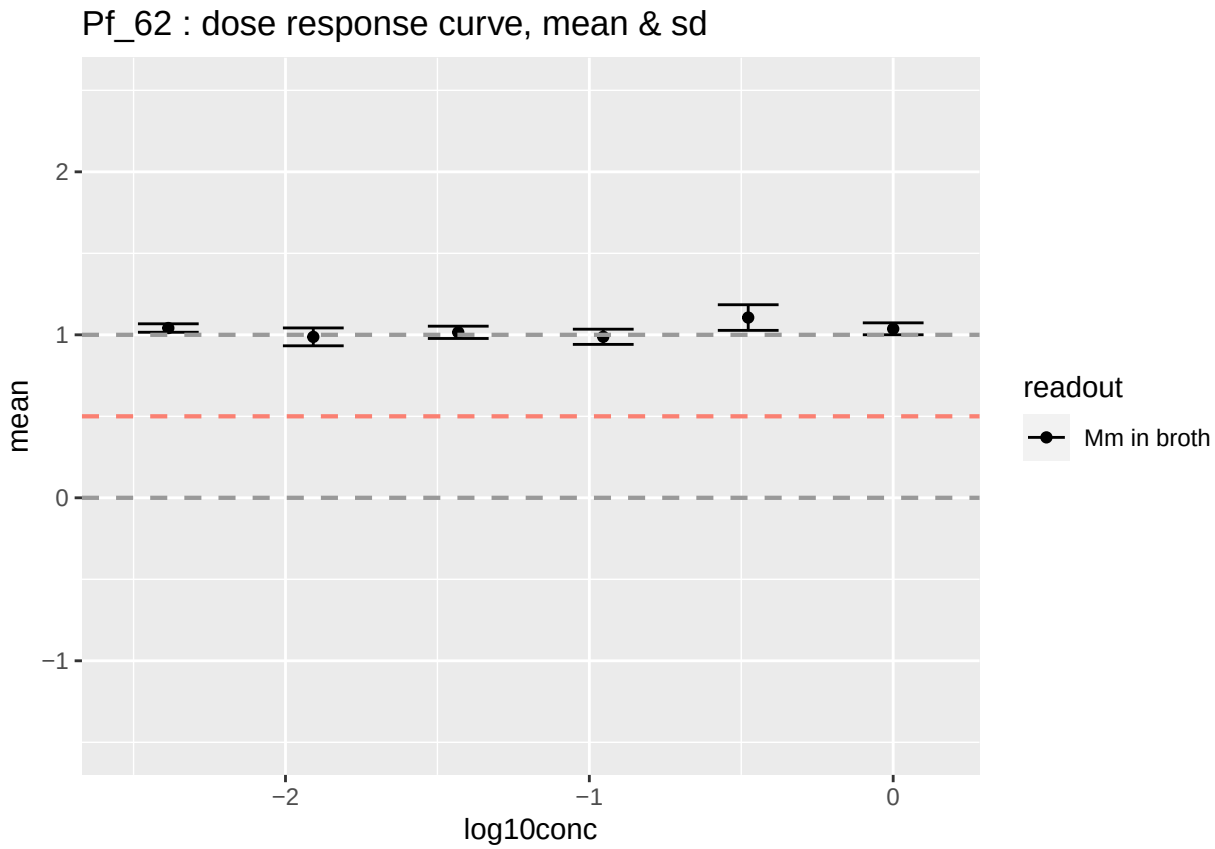

Mo_65 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Mo_71 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

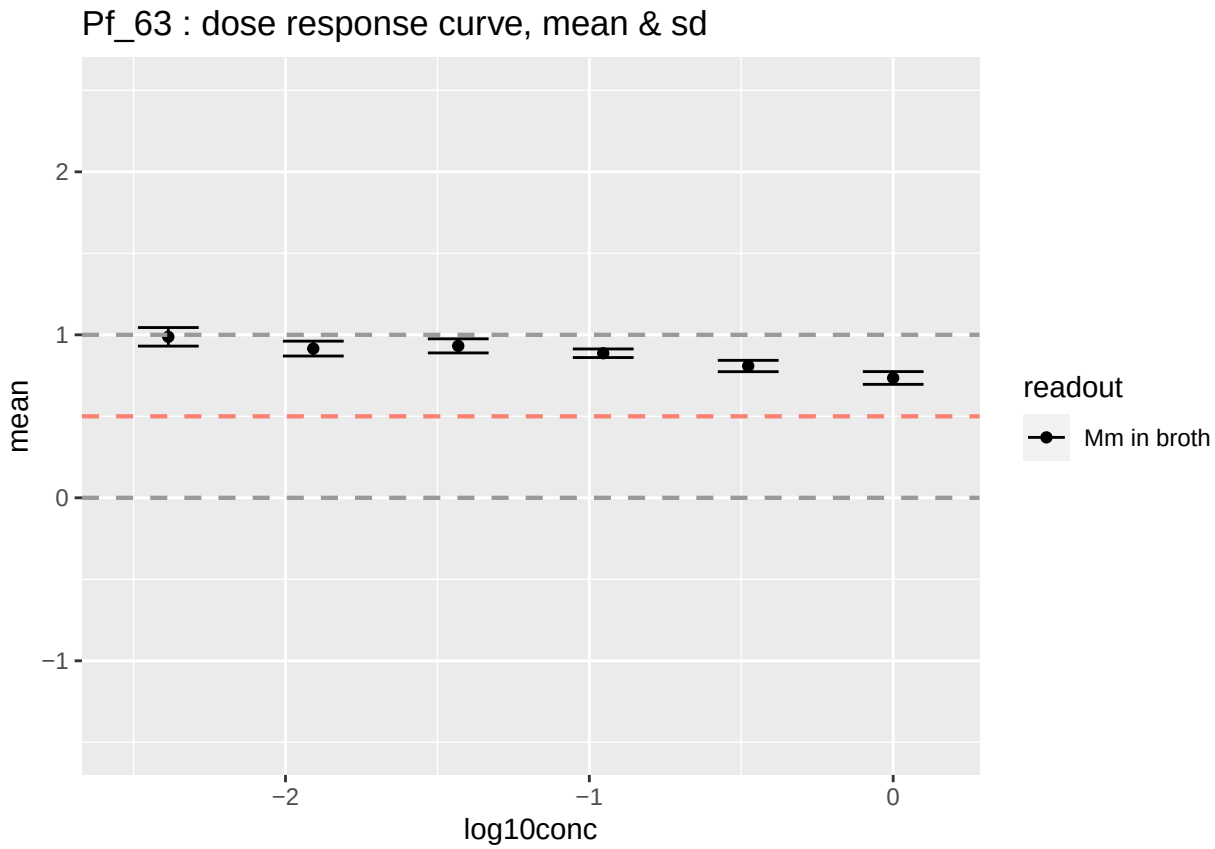

Mo_71 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

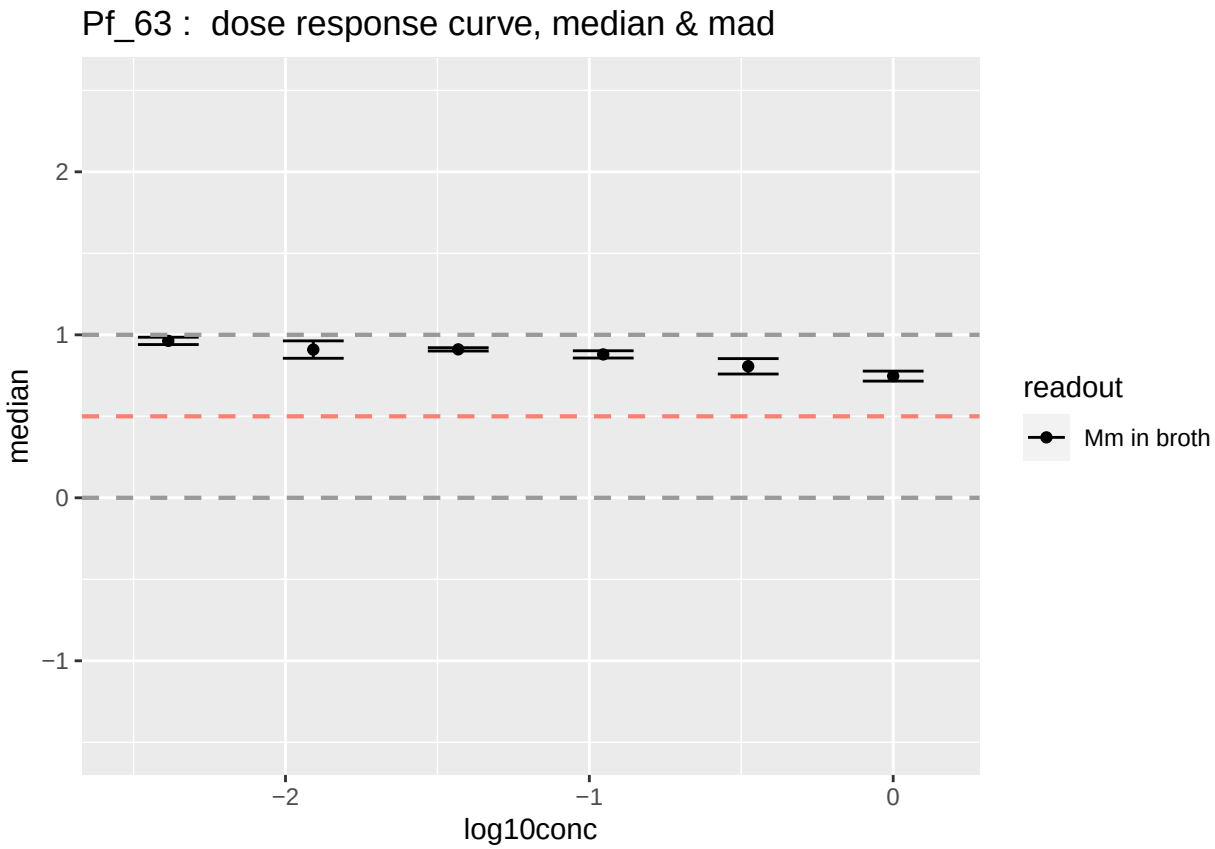

Mo_72 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

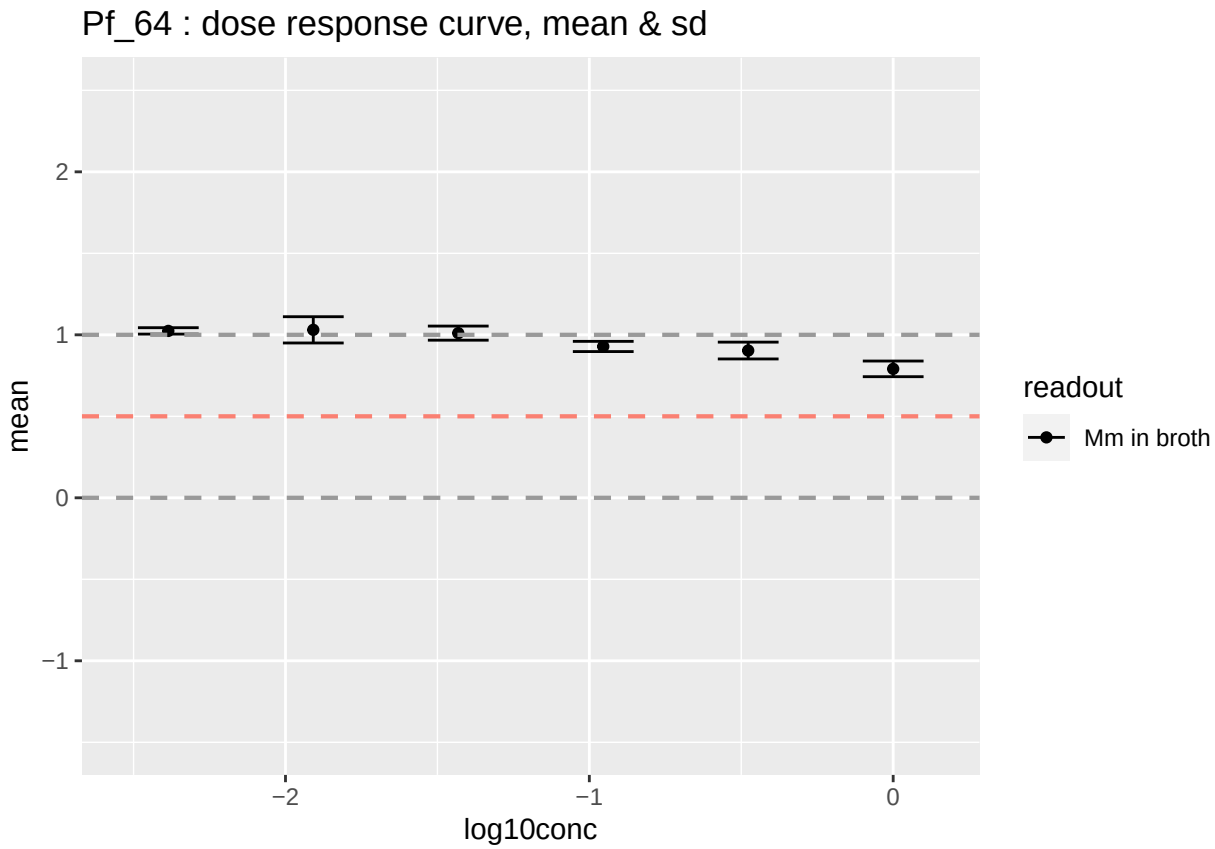

Mo_72 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

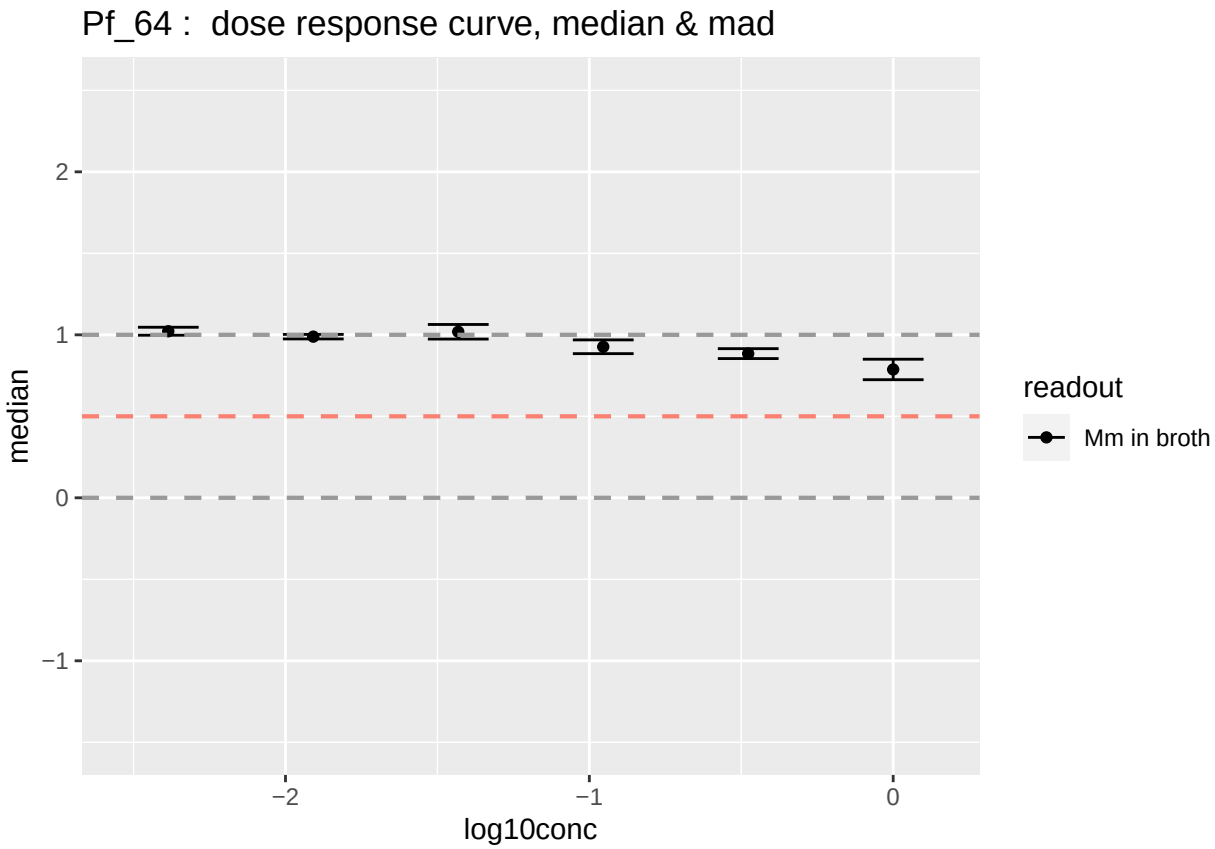

Pf_62 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

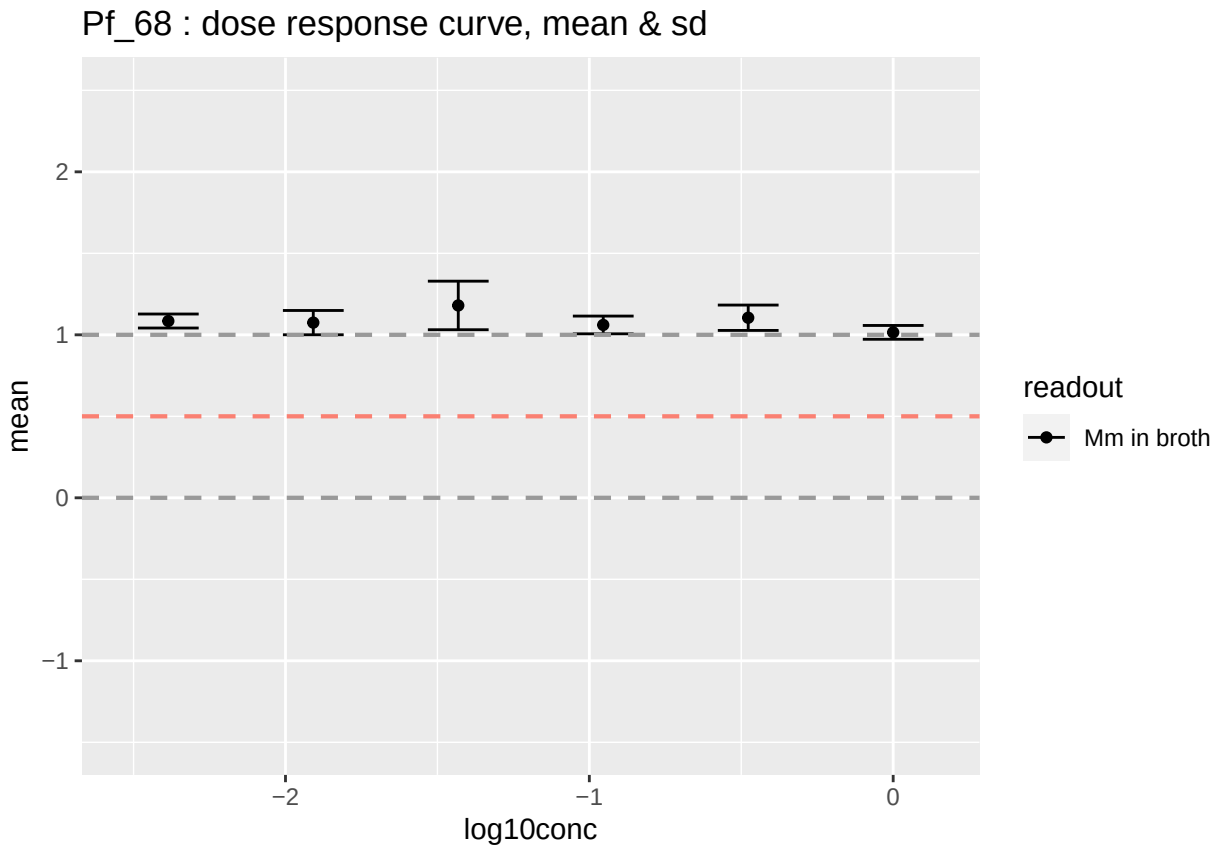

Pf_62 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

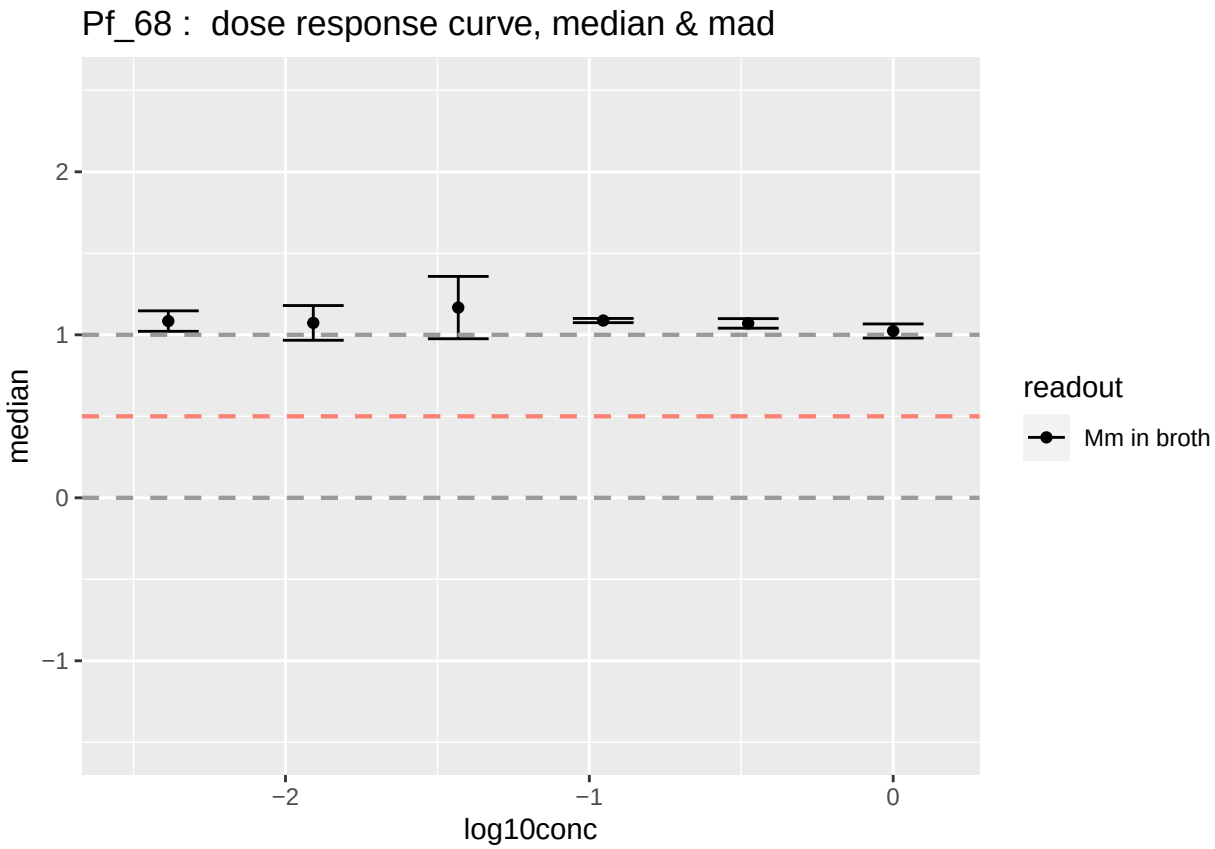

Pf_63 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

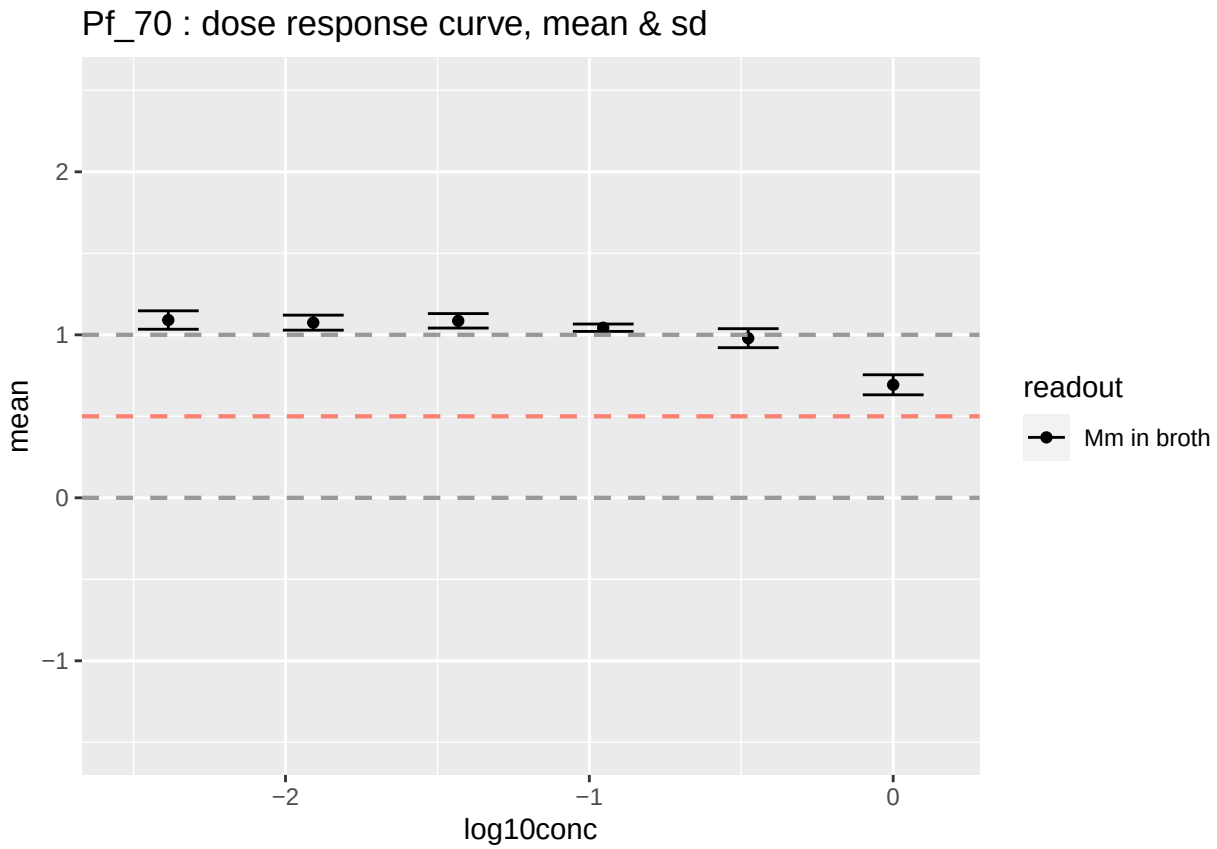

Pf_63 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

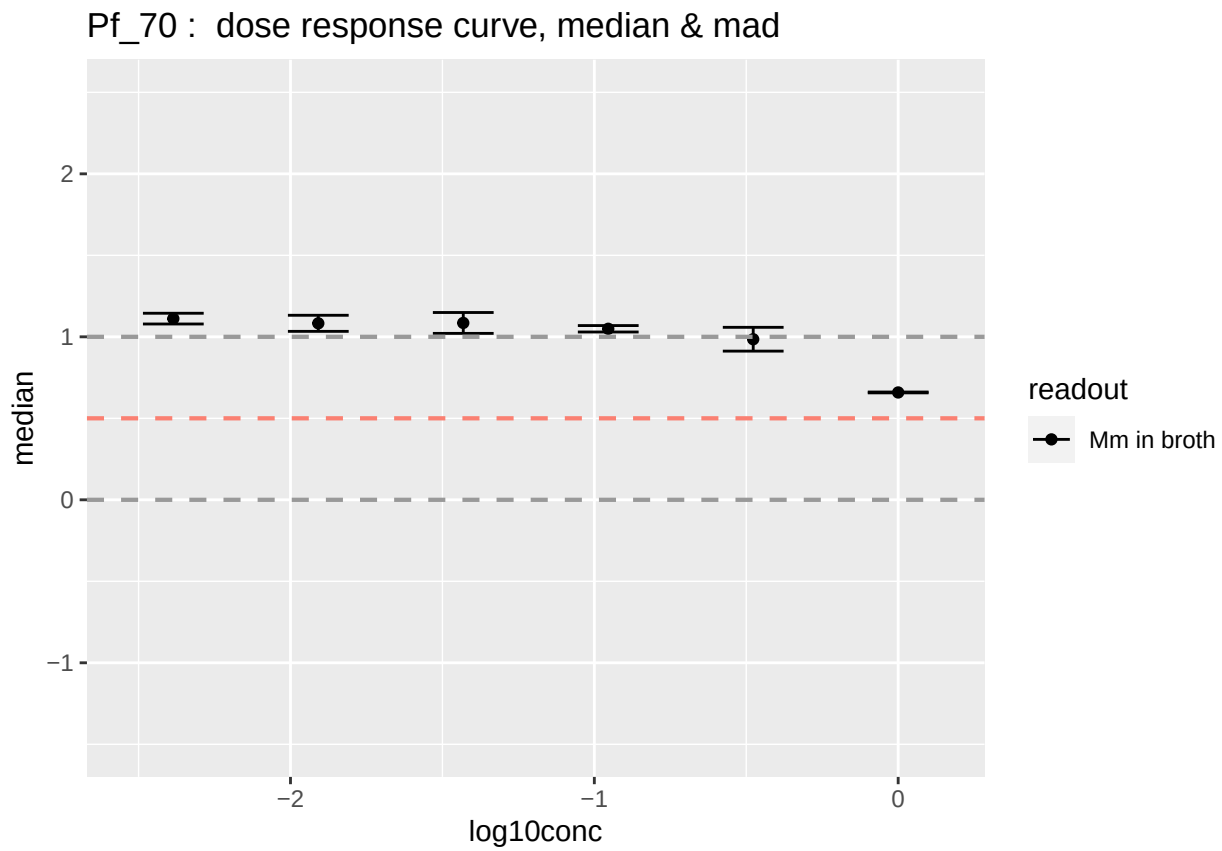

Pf_64 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

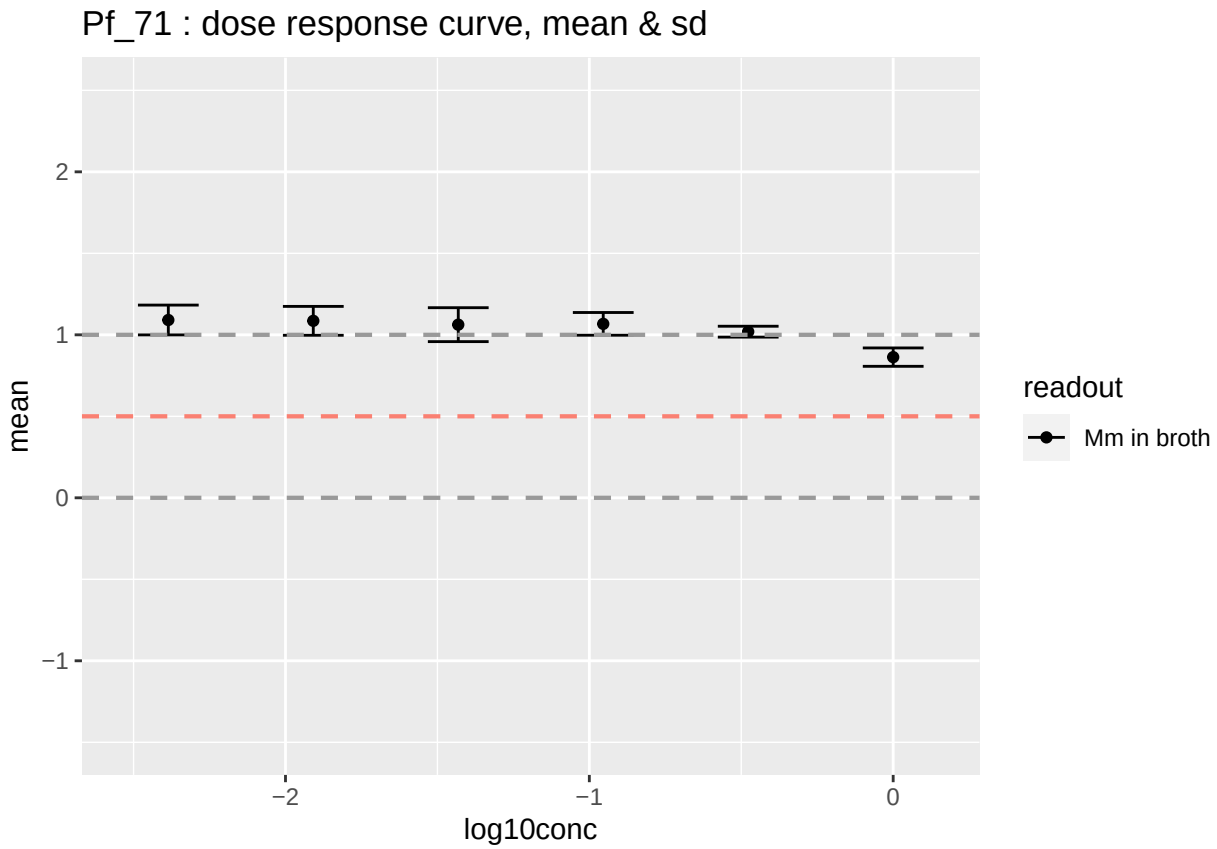

Pf_64 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Pf_68 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

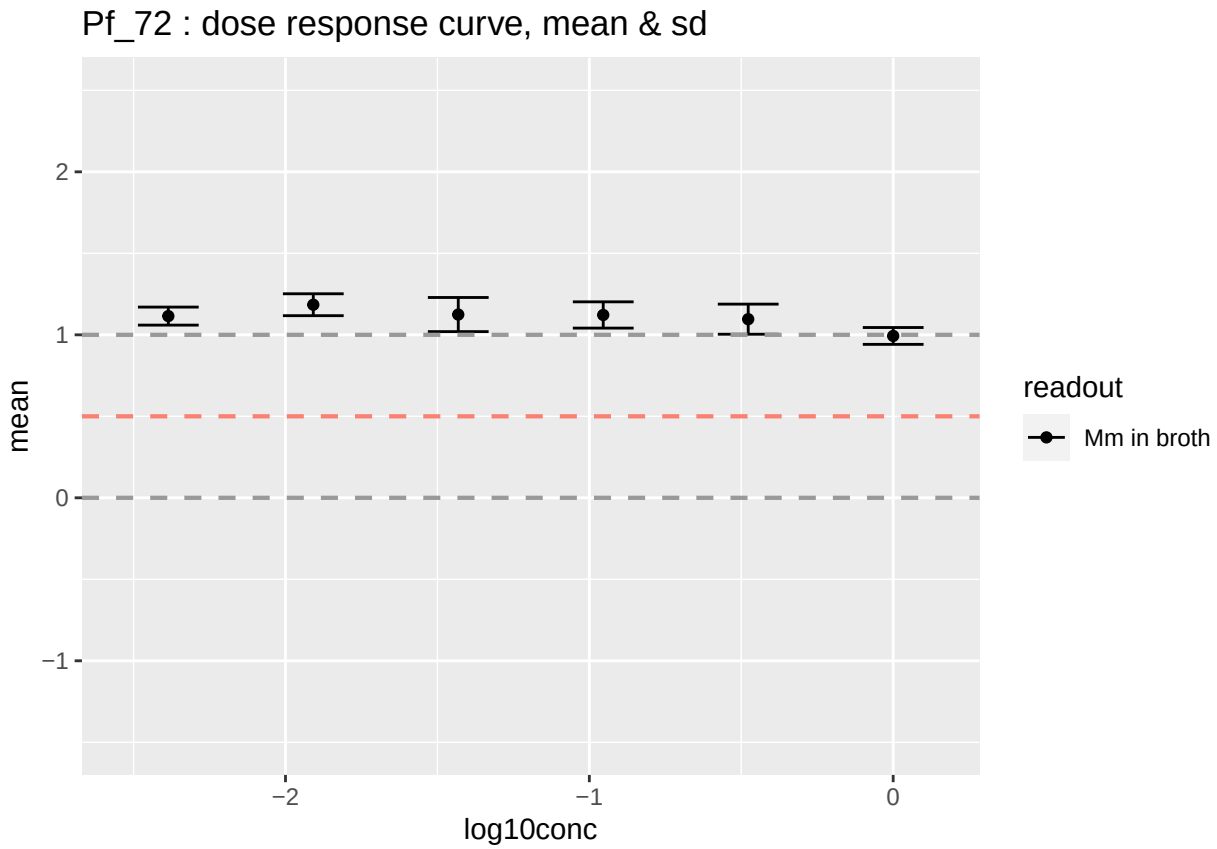

Pf_68 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

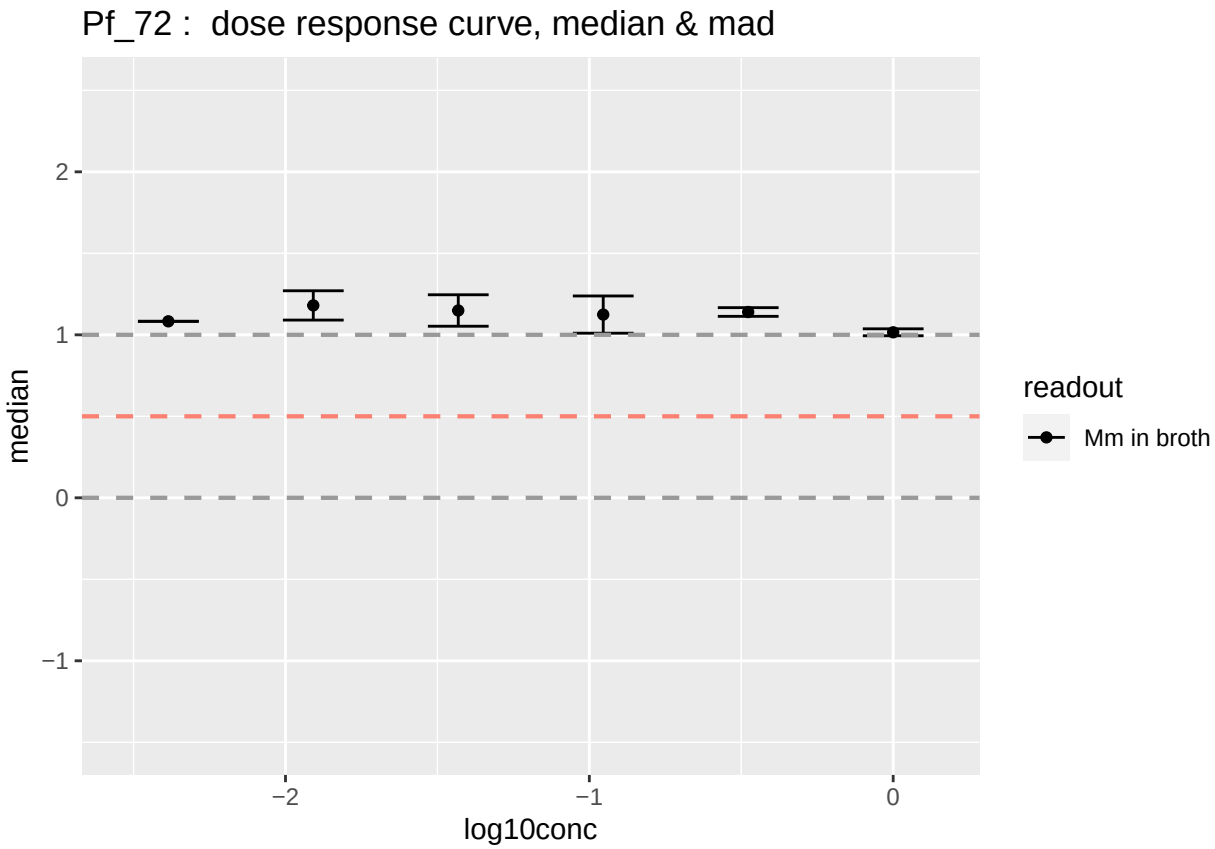

Pf_70 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

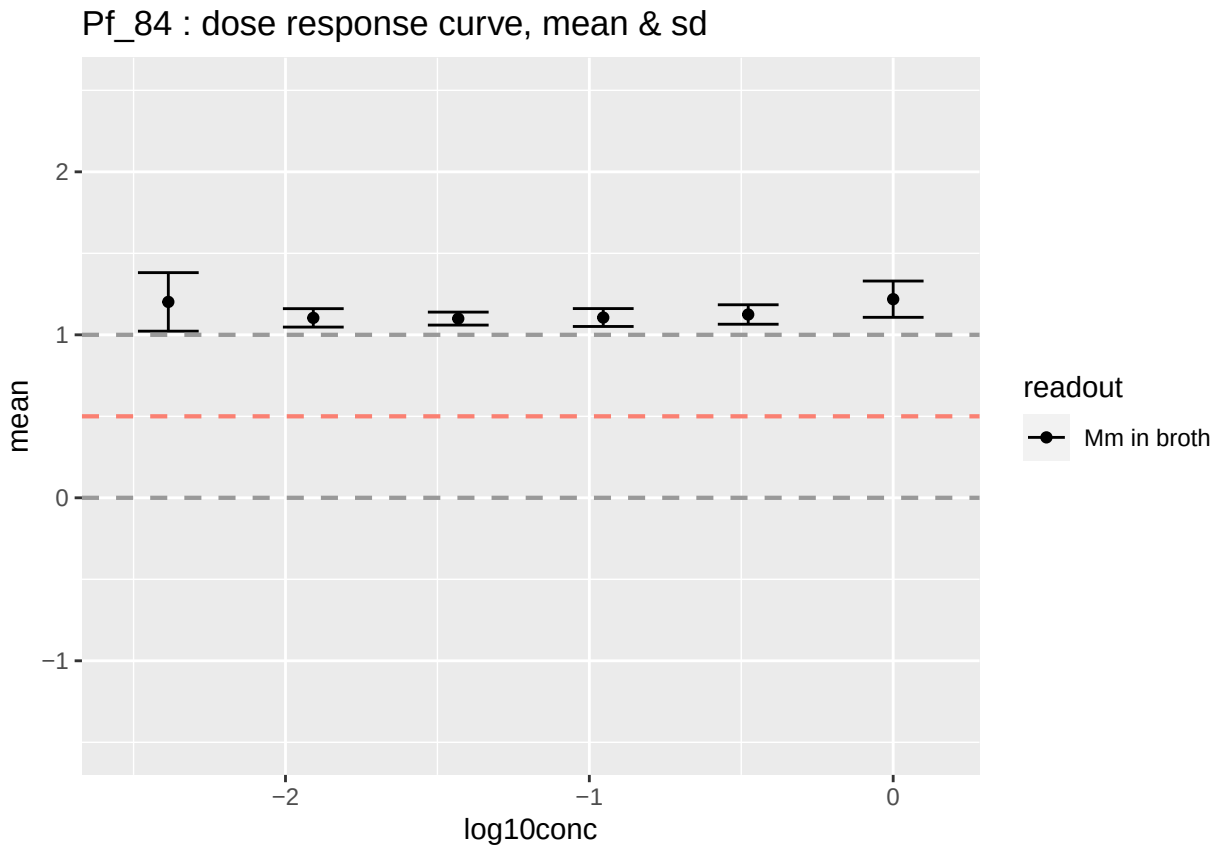

Pf_70 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Pf_71 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

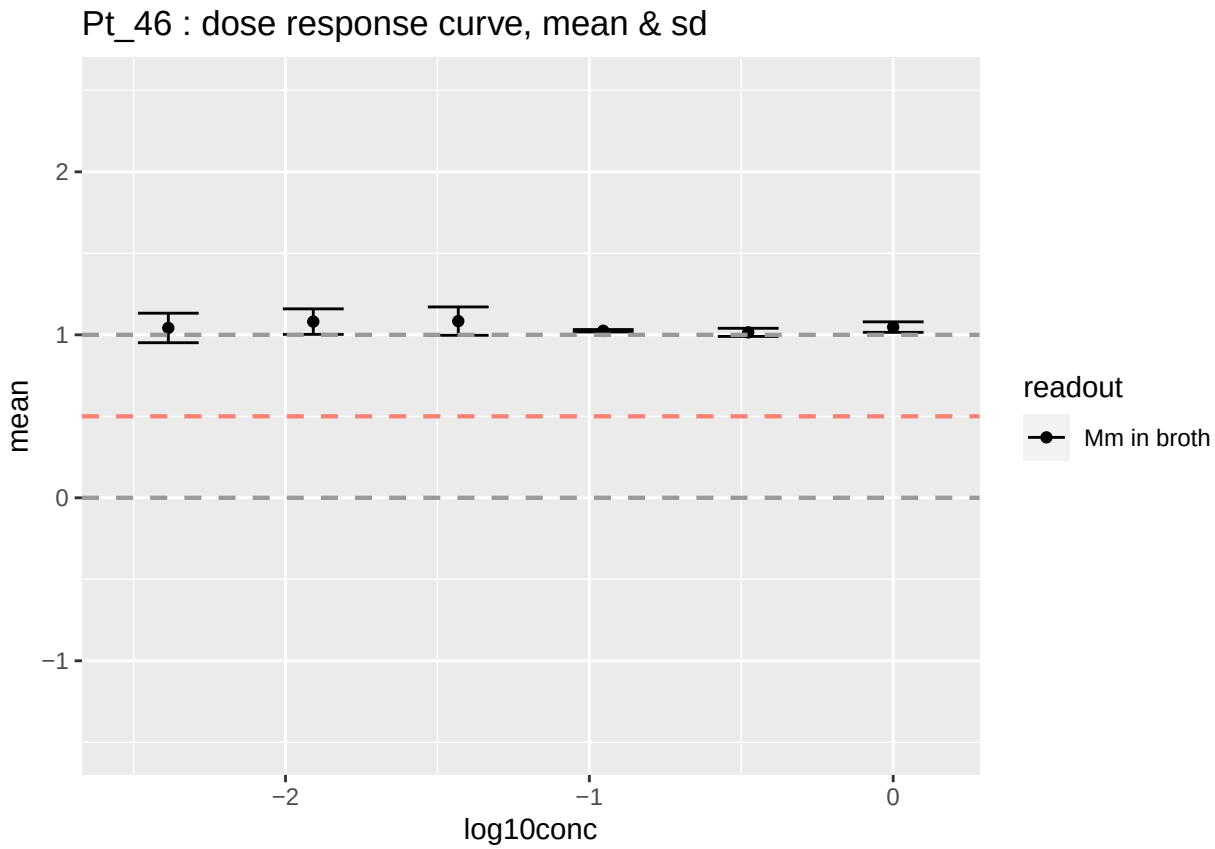

Pf_71 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Pf_72 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

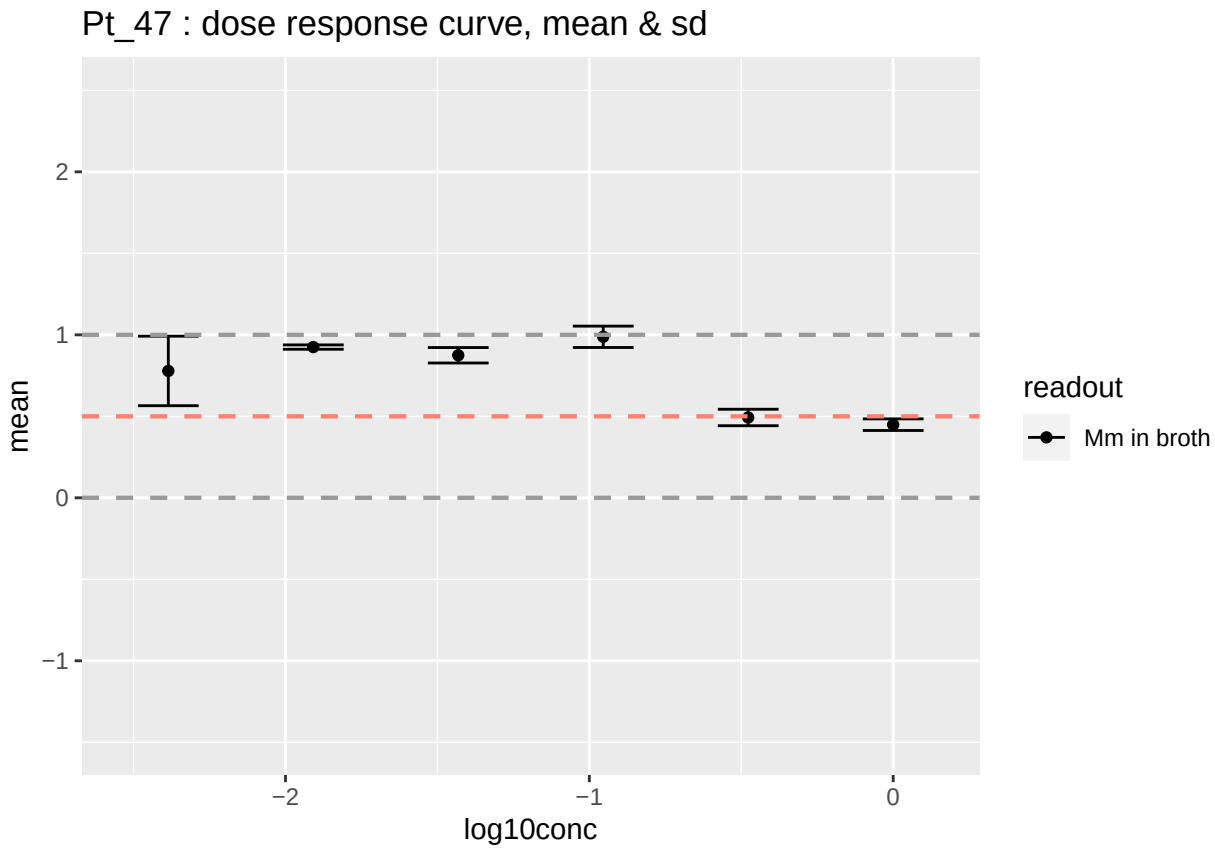

Pf_72 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

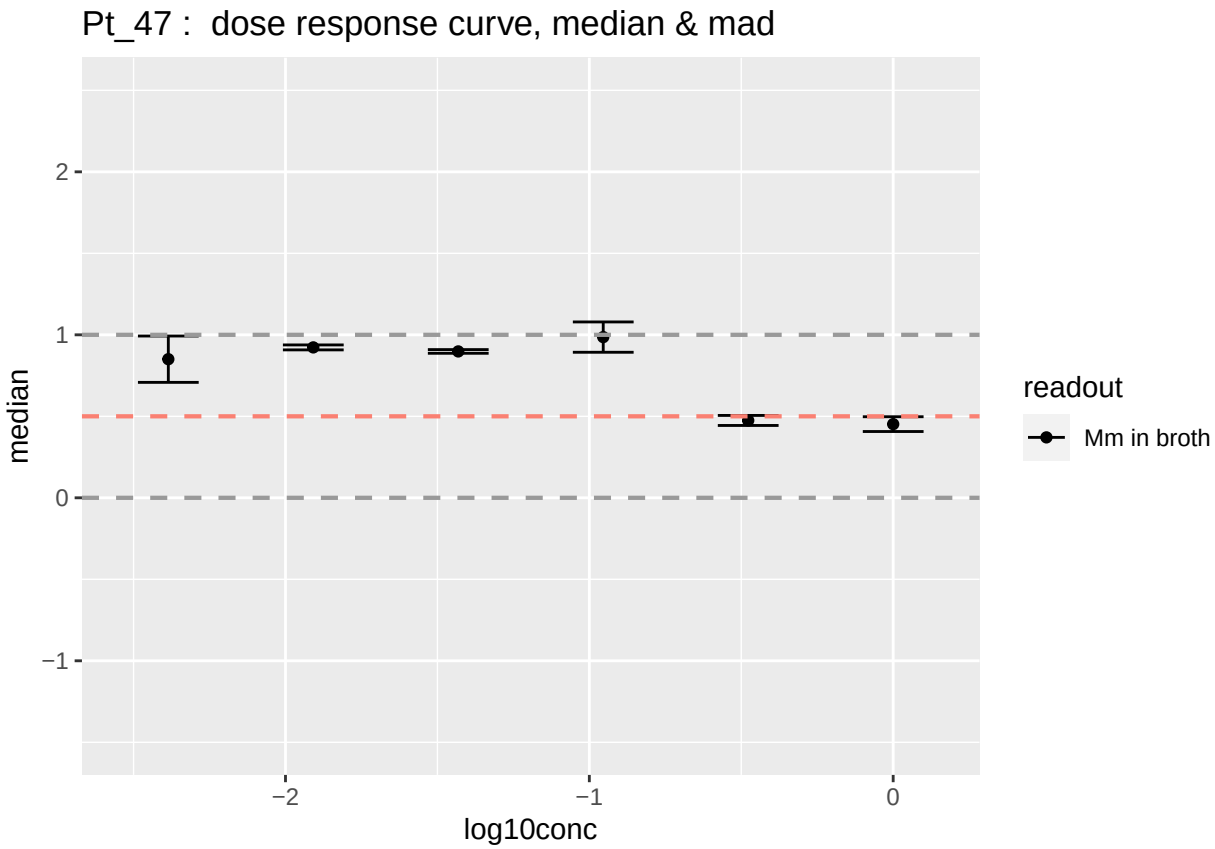

Pf_84 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

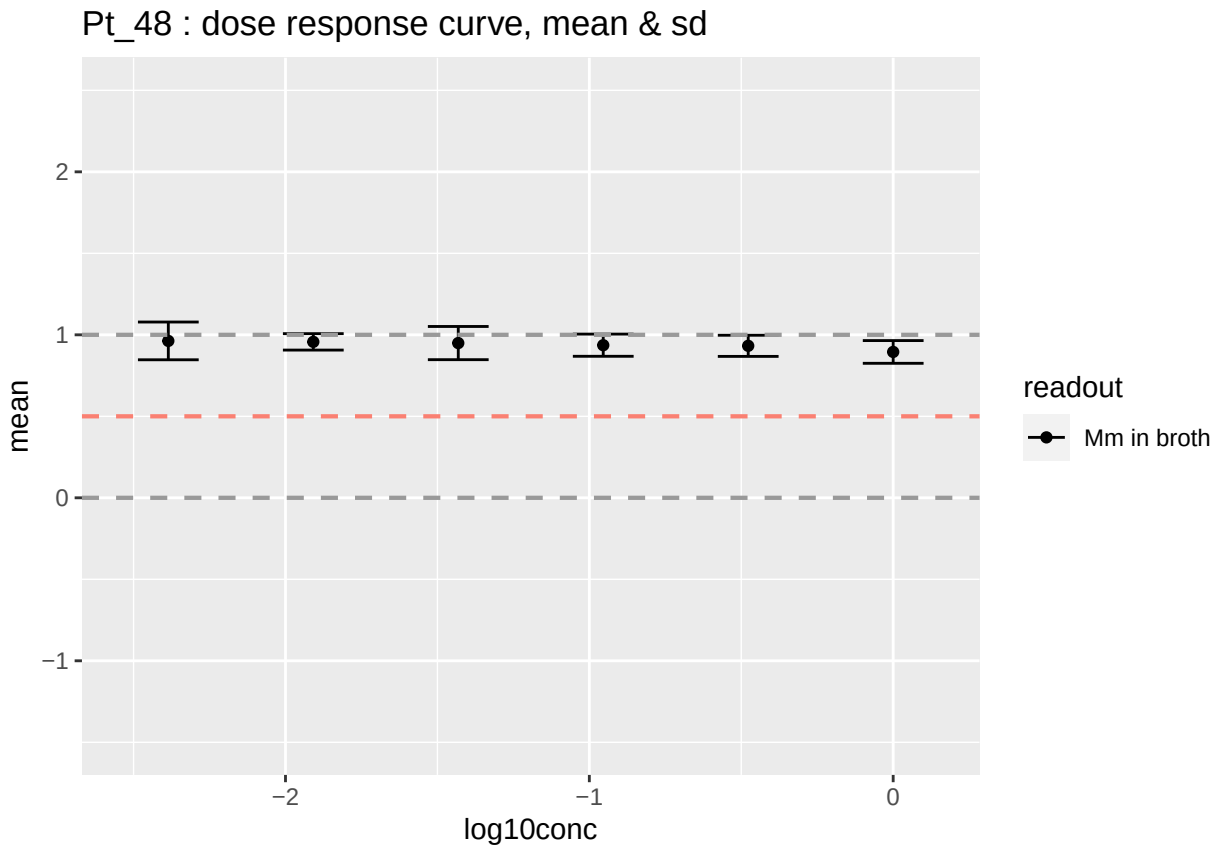

Pf_84 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Pt_46 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Pt_46 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

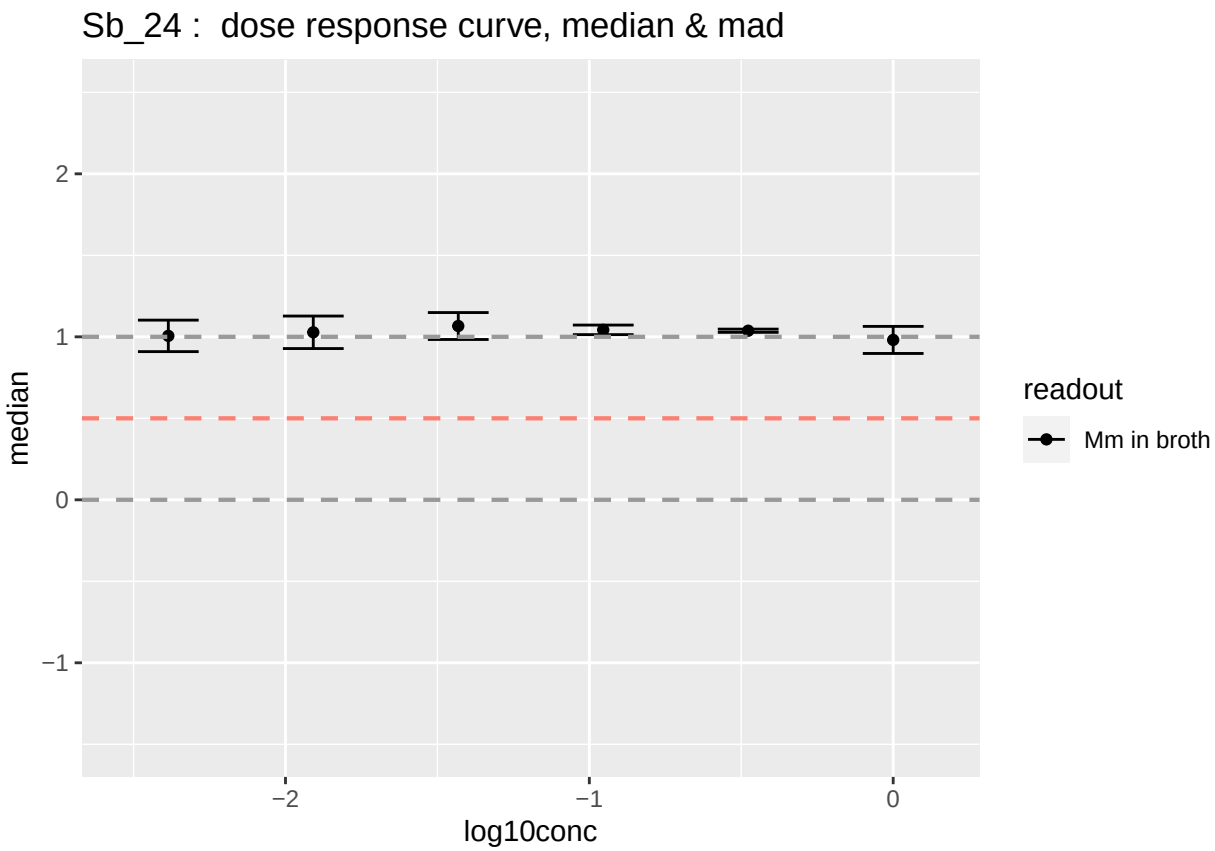

Pt_47 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

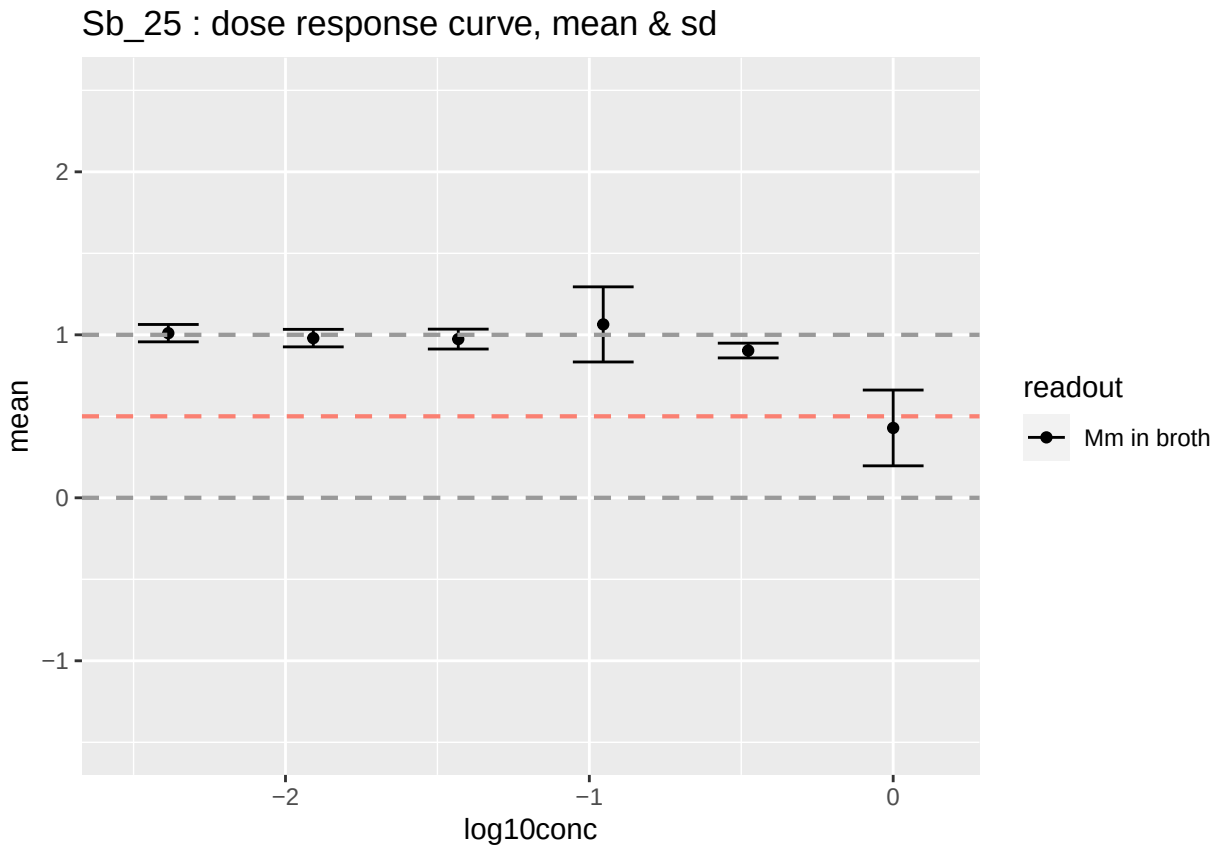

Pt_47 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

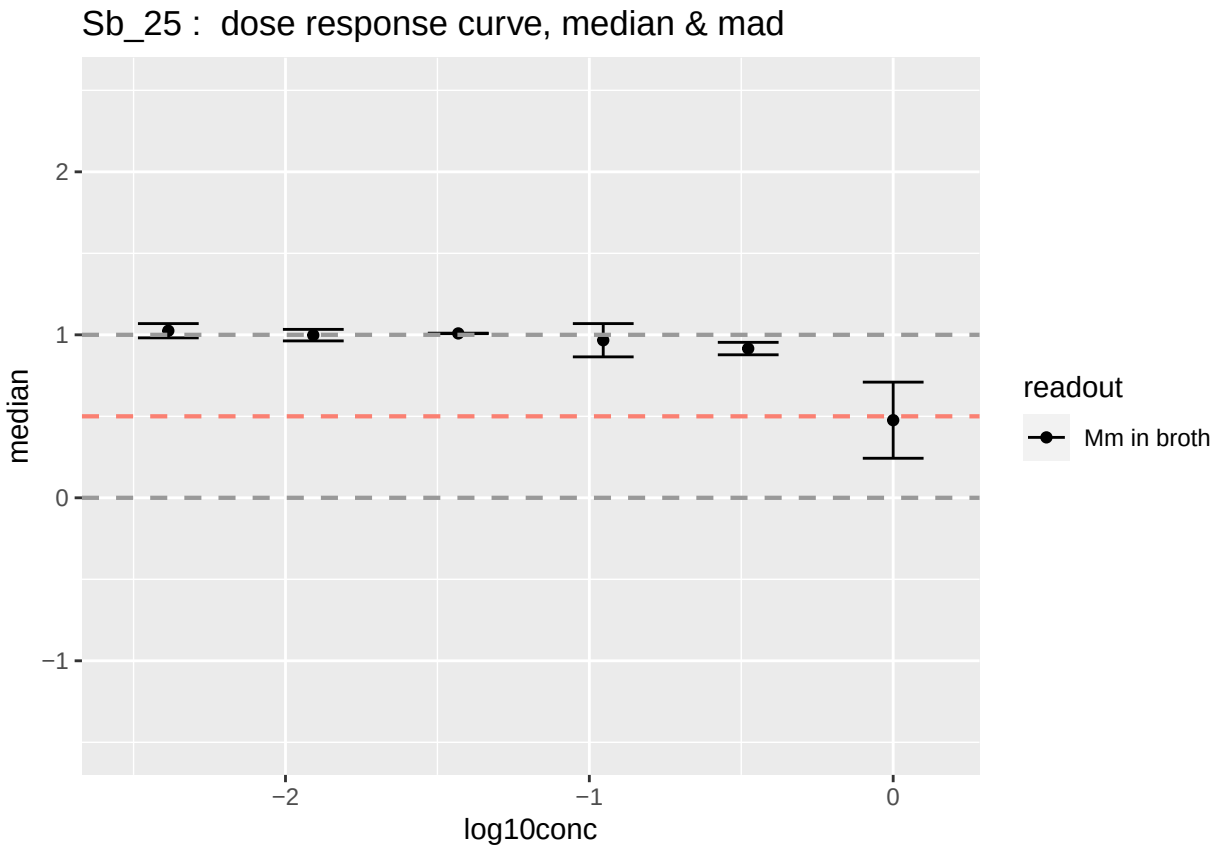

Pt_48 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

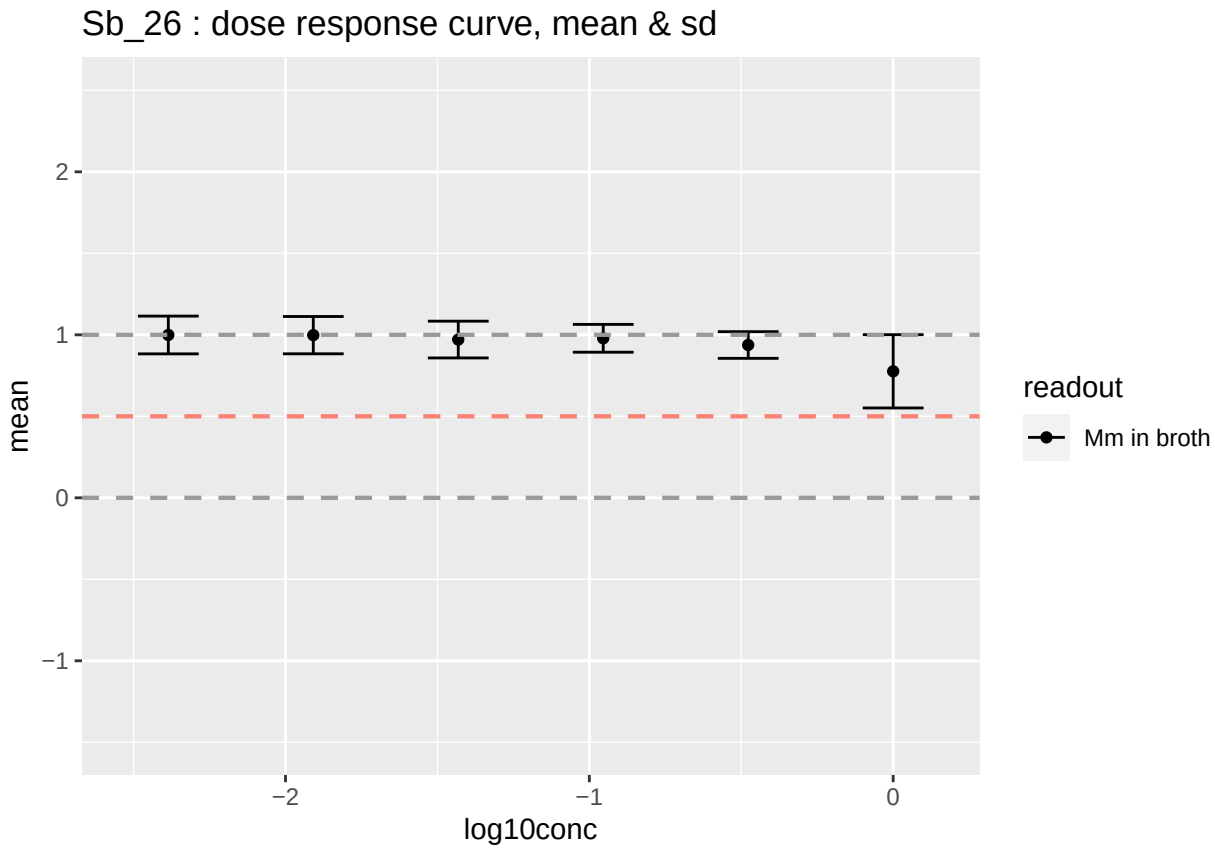

Pt_48 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

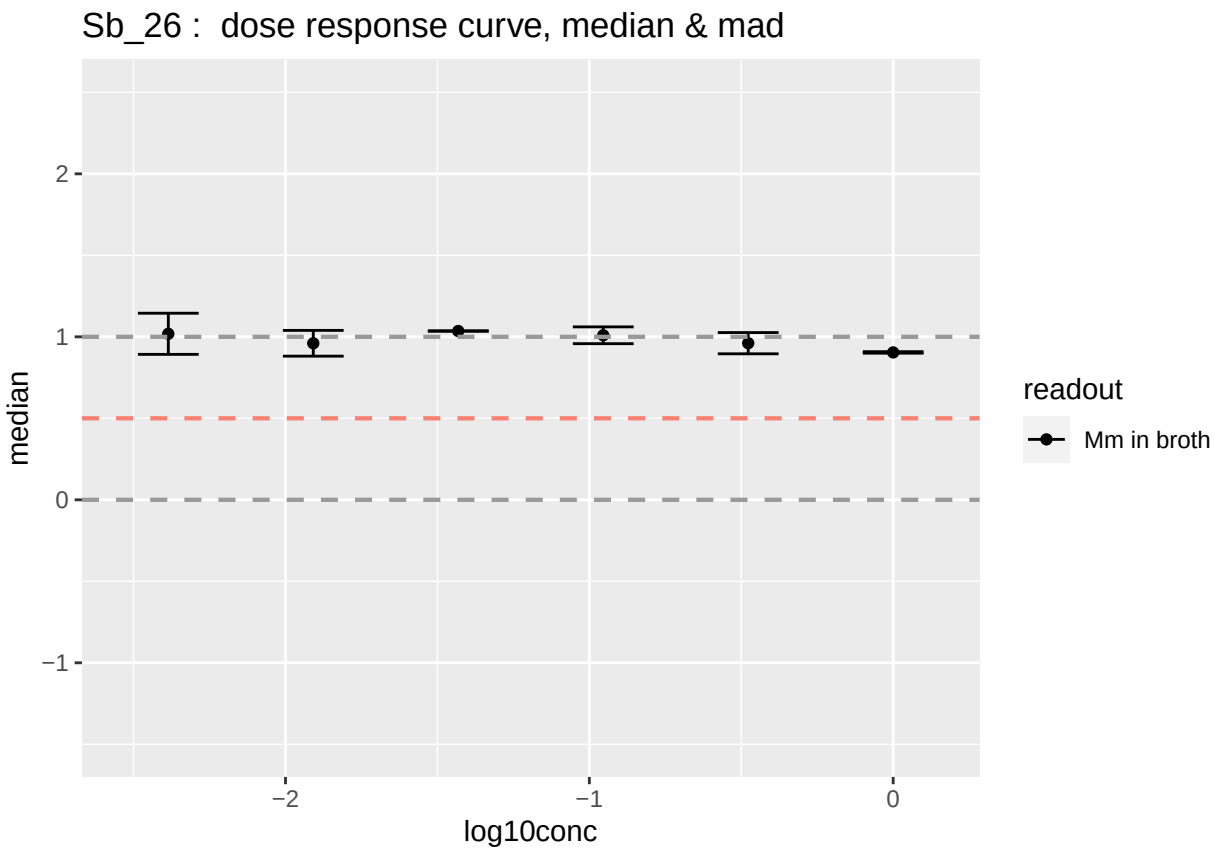

Sb_24 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

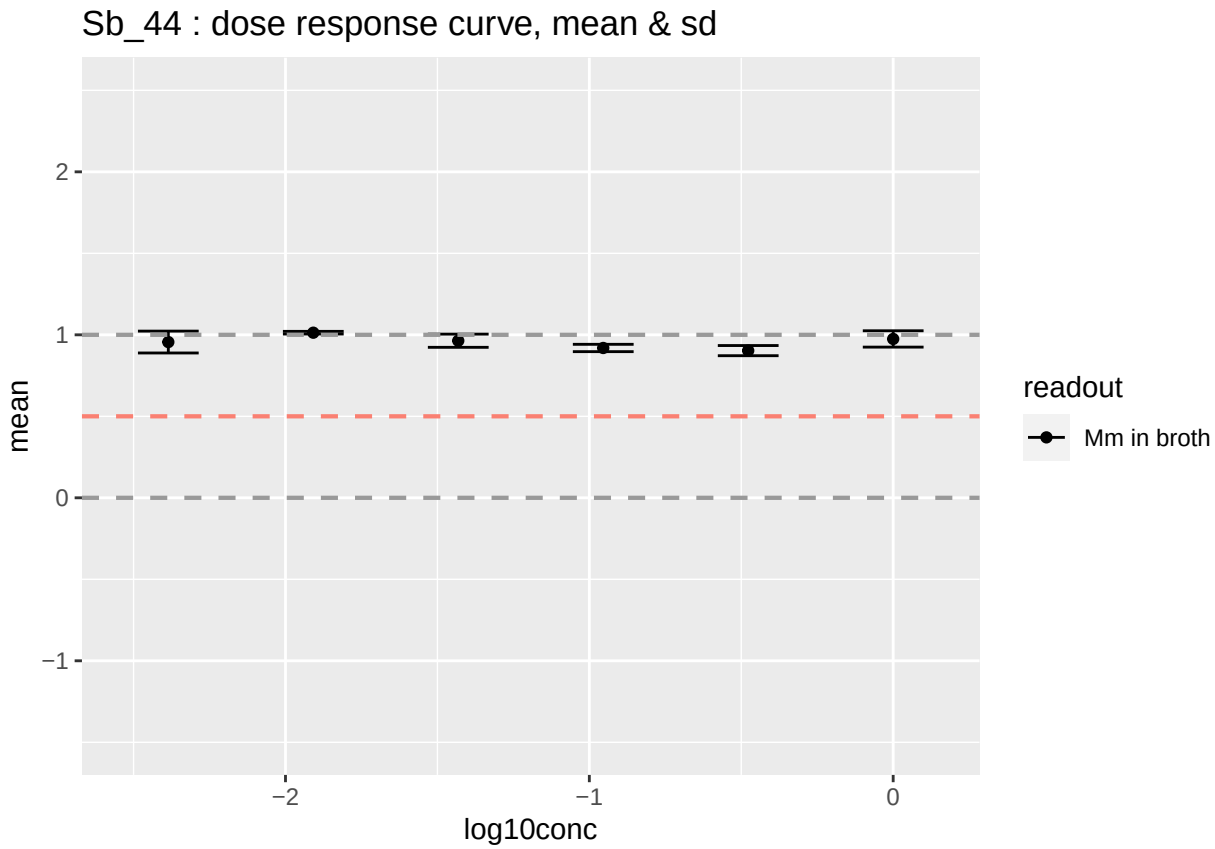

Sb_24 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

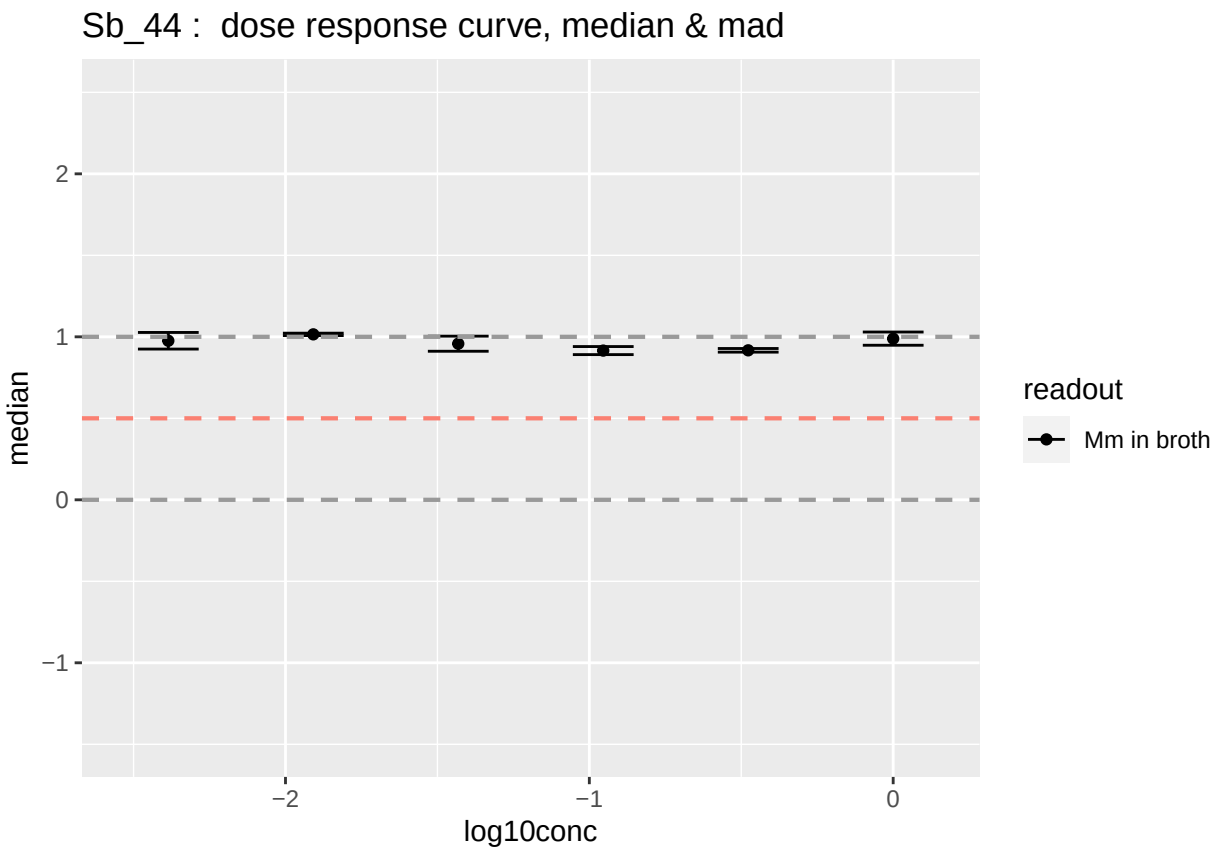

Sb_25 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Sb_25 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

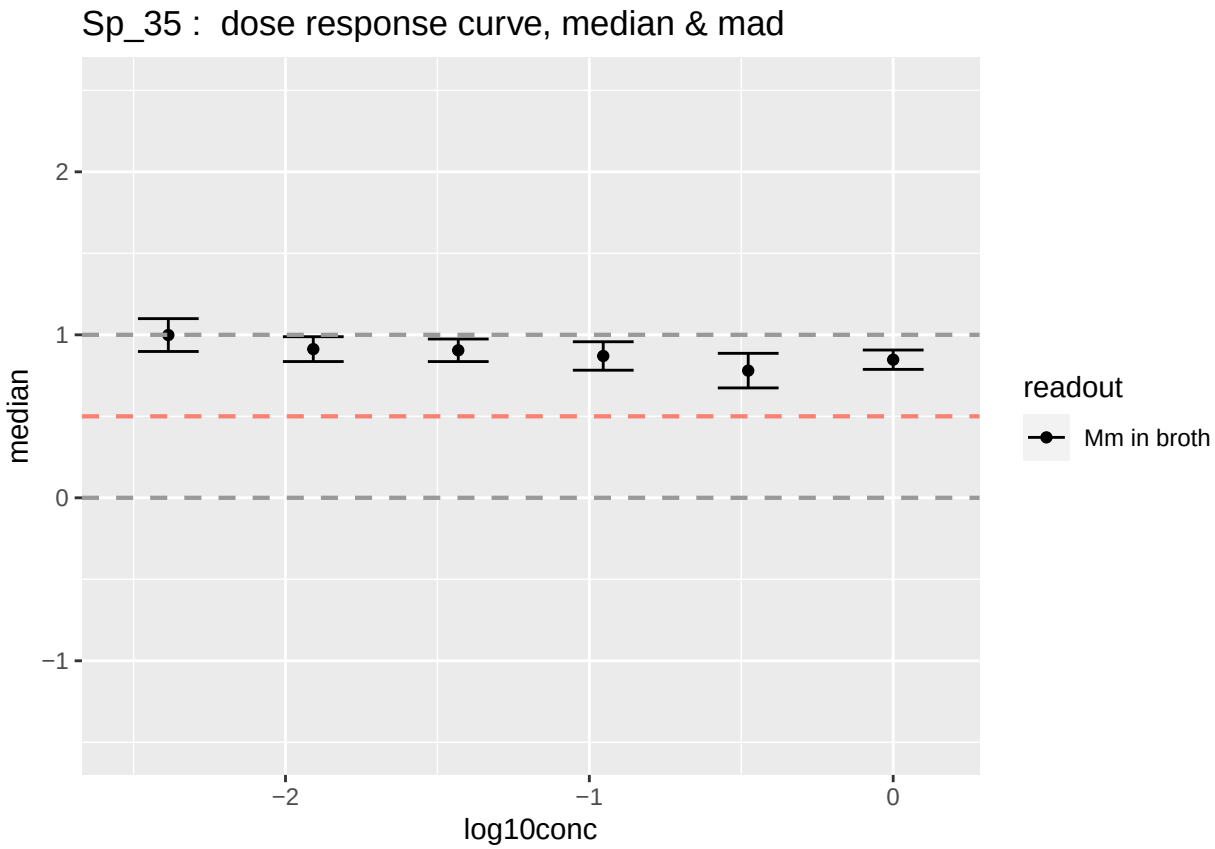

Sb_26 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

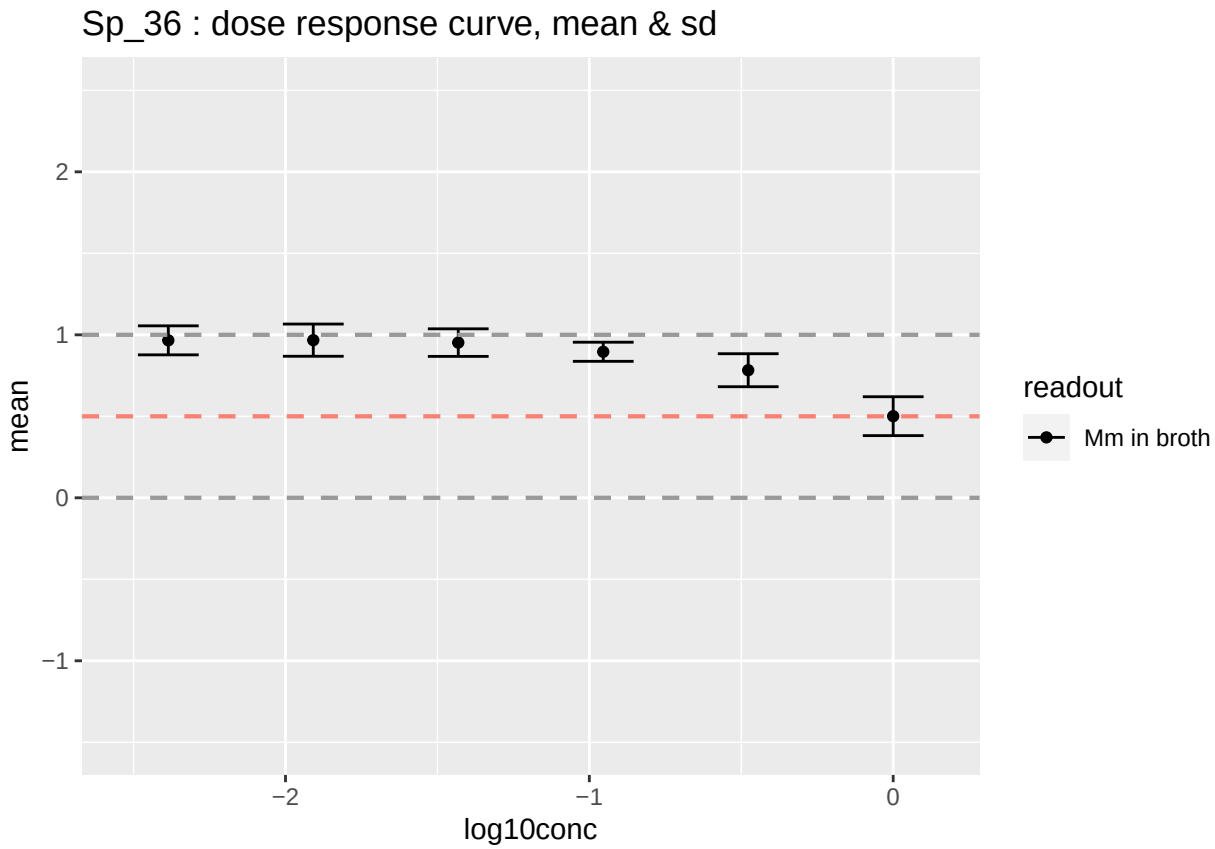

Sb_26 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

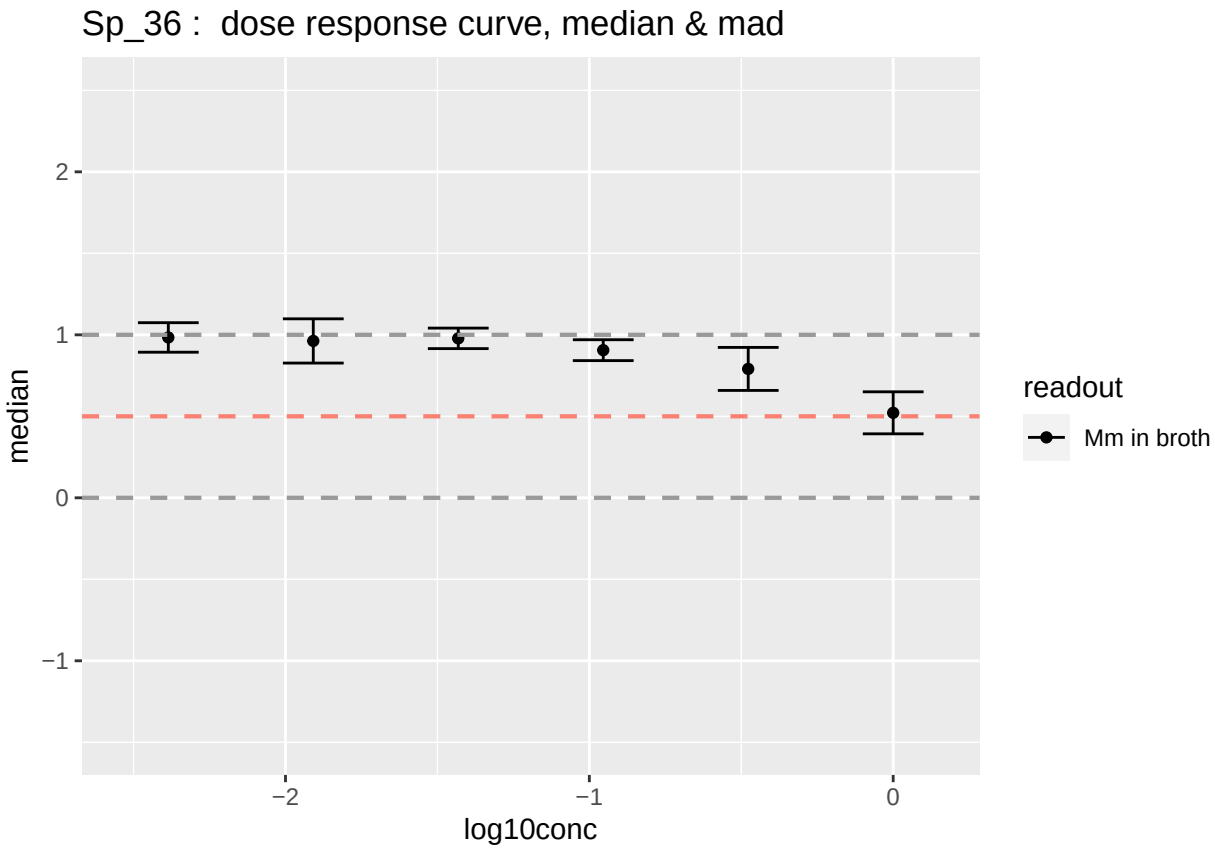

Sb_44 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

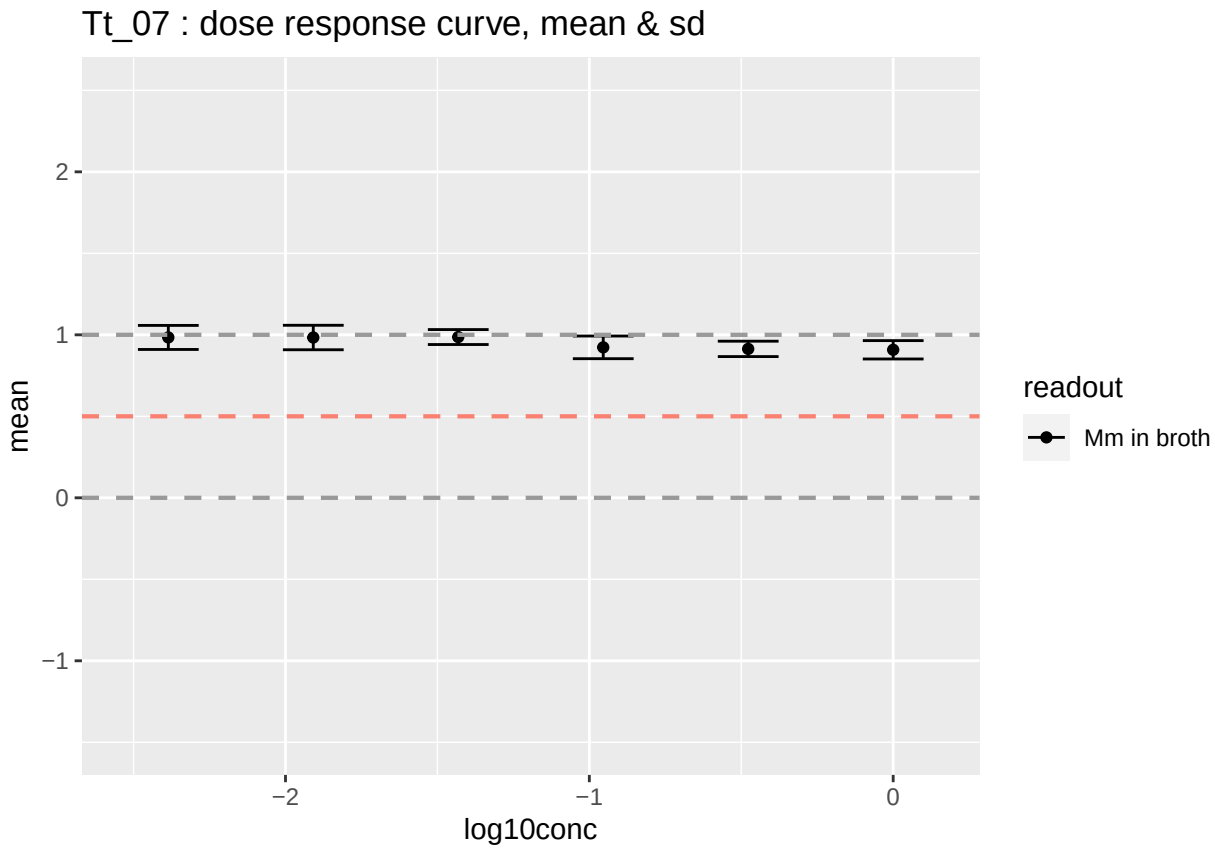

Sb_44 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth

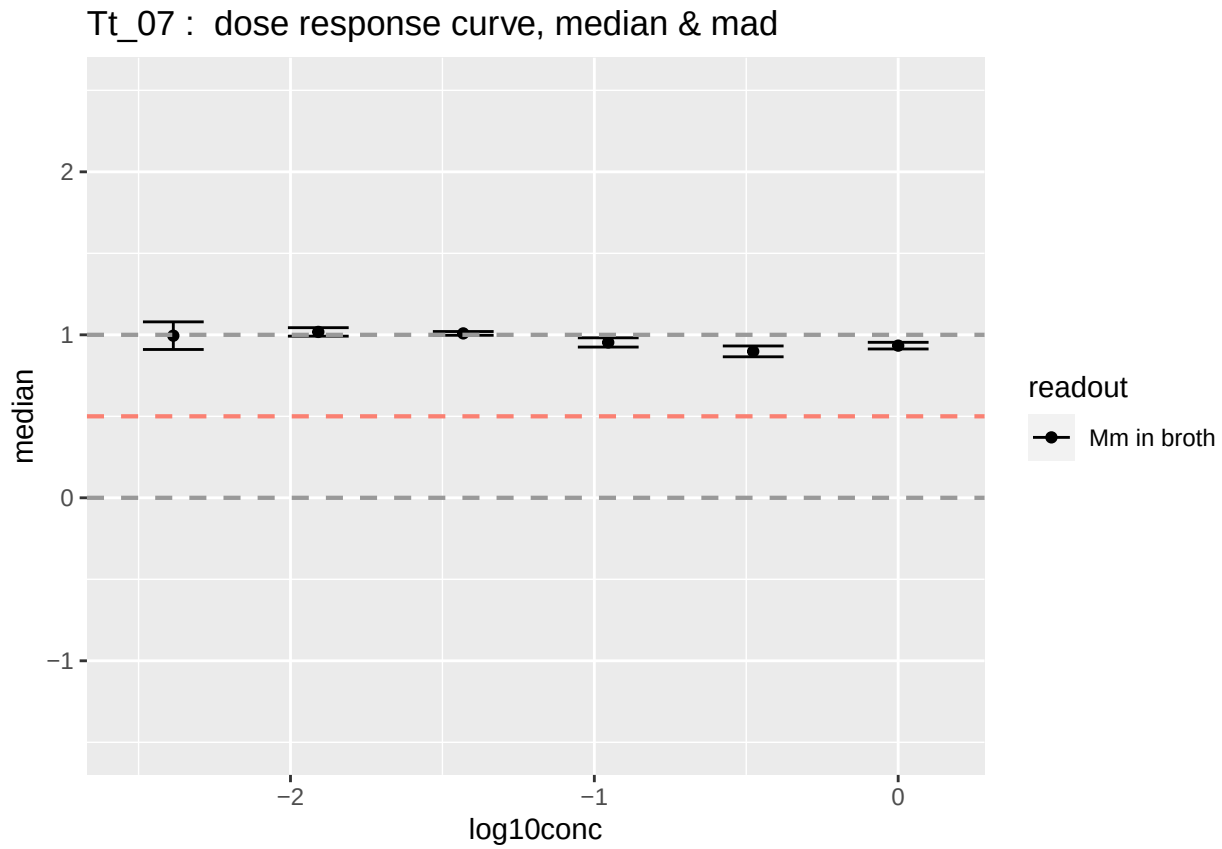

Sp_35 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Sp_35 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Sp_36 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Sp_36 : dose response curve, median & mad
median
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth


Tt_07 : dose response curve, mean & sd
mean
2
1
0
−1
−2
−1
0
log10conc
readout
Mm in broth




```
## R version 4.3.1 (2023-06-16 ucrt)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 19045)
##
## Matrix products: default
##
##
## locale:
## [1] LC_COLLATE=English_Switzerland.utf8  LC_CTYPE=English_Switzerland.utf8
## [3] LC_MONETARY=English_Switzerland.utf8 LC_NUMERIC=C
## [5] LC_TIME=English_Switzerland.utf8
##
## time zone: Europe/Zurich
## tzcode source: internal
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] reshape2_1.4.4 tidyr_1.3.0    dplyr_1.1.3    ggplot2_3.4.4  gplots_3.1.3
## [6] readxl_1.4.3   xlsx_0.6.5
##
## loaded via a namespace (and not attached):
##  [1] gtable_0.3.4       compiler_4.3.1     gtools_3.9.4       Rcpp_1.0.11
##  [5] tidyselect_1.2.0   stringr_1.5.0      bitops_1.0-7       scales_1.2.1
##  [9] yaml_2.3.7         fastmap_1.1.1      plyr_1.8.9         R6_2.5.1
```

```
## [13] labeling_0.4.3     generics_0.1.3     knitr_1.44         tibble_3.2.1
## [17] munsell_0.5.0      pillar_1.9.0       rlang_1.1.1        utf8_1.2.3
## [21] stringi_1.7.12     xfun_0.40          caTools_1.18.2     cli_3.6.1
## [25] withr_2.5.1        magrittr_2.0.3     digest_0.6.33      grid_4.3.1
## [29] rstudioapi_0.15.0  rJava_1.0-6        lifecycle_1.0.3    vctrs_0.6.3
## [33] KernSmooth_2.23-21 evaluate_0.22      glue_1.6.2         farver_2.1.1
## [37] cellranger_1.1.0   xlsxjars_0.6.1     fansi_1.0.5        colorspace_2.1-0
## [41] rmarkdown_2.25     purrr_1.0.2        tools_4.3.1        pkgconfig_2.0.3
## [45] htmltools_0.5.6.1
```