

Supplementary File

**Ibuprofen alters epoxide hydrolase activity and epoxy-oxylin metabolites associated with
different metabolic pathways in murine livers**

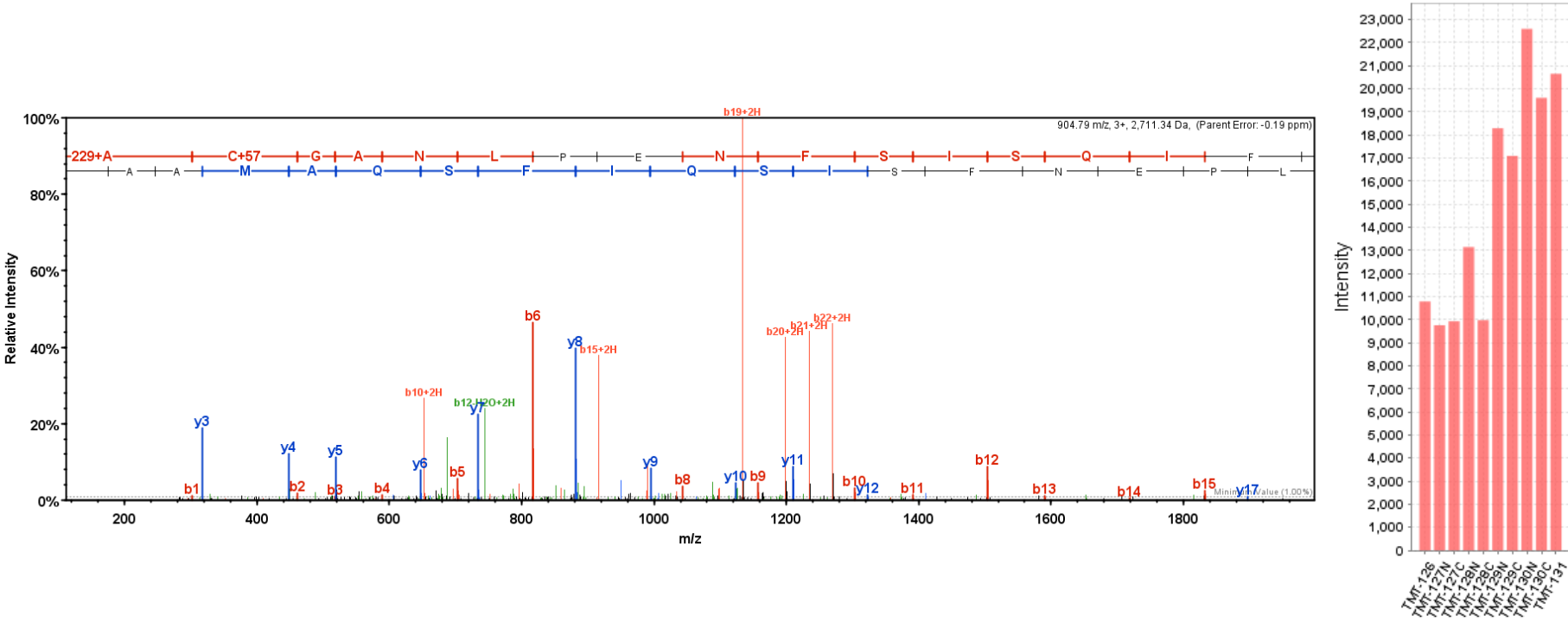
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R Session Information

```
## R version 4.0.2 (2020-06-22)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: CentOS Linux 7 (Core)
##
## Matrix products: default
## BLAS: /usr/local/lib64/R/lib/libRblas.so
## LAPACK: /usr/local/lib64/R/lib/libRlapack.so
##
## locale:
## [1] C
##
## attached base packages:
## [1] stats      graphics  grDevices datasets  utils      methods    base
##
## other attached packages:
## [1] kableExtra_1.2.1 knitr_1.29      emmeans_1.5.0    limma_3.44.3
## [5] readxl_1.3.1      dplyr_1.0.2
##
## loaded via a namespace (and not attached):
## [1] Rcpp_1.0.5      plyr_1.8.6      highr_0.8
## [4] cellranger_1.1.0 pillar_1.4.6     compiler_4.0.2
## [7] BiocManager_1.30.10 tools_4.0.2      digest_0.6.25
## [10] viridisLite_0.3.0 evaluate_0.14     lifecycle_0.2.0
## [13] tibble_3.0.3    pkgconfig_2.0.3  rlang_0.4.7
## [16] rstudioapi_0.11 yaml_2.2.1       mvtnorm_1.1-1
## [19] xfun_0.17       stringr_1.4.0    httr_1.4.2
## [22] xml2_1.3.2      generics_0.0.2   vctrs_0.3.4
## [25] webshot_0.5.2   tidyselect_1.1.0 glue_1.4.2
## [28] R6_2.4.1        rmarkdown_2.3    purrr_0.3.4
## [31] magrittr_1.5    scales_1.1.1     ellipsis_0.3.1
## [34] htmltools_0.5.0 rvest_0.3.6      xtable_1.8-4
## [37] colorspace_1.4-1 renv_0.12.0      stringi_1.5.3
## [40] estimability_1.3 munsell_0.5.0    crayon_1.3.4
```

HYES_MOUSE (100%) 62,516.8 Da
Bifunctional epoxide hydrolase 2 OS=Mus musculus OX=10090 GN=Ephx2 PE=1 SV=2

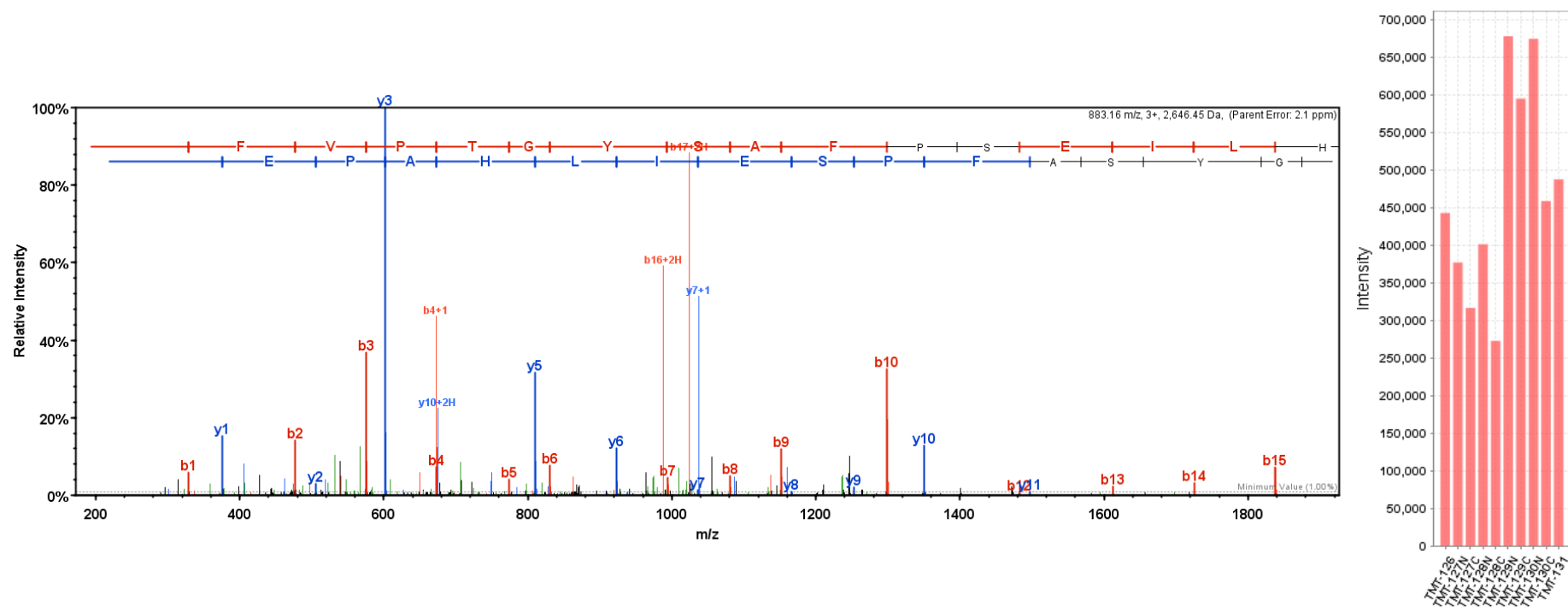
MALR	VAAFDL	DGVLALPSIA	GAFR	SEEAL	ALPRD	FLLGA	YQTEF	PEGPT	EQLMK	GK	ITF	SQWVPLMDES	YRKSSK	ACGA	NLPENFSISQ		
IFSQA	MAARS	INRPMLQAAI	ALK	KGFTTC	IVTNN	WLDDG	DKRDS	LAQMM	CELSQH	FDFL	IESCQV	GMIK	PEPQI	YNFLL	DTLK	AKPNEV	
VFLDD	FGSNL	KPARDMGMVT	ILVHNT	ASAL	RELEK	VTGTQ	FPEAPL	PVPG	NFNDV	SHGYV	TVKPG	IRLHF	VEMGSG	PALC	LCHGF	PESWF	
SWRY	QIPALA	QAGFR	VLAID	MKGY	GDSSSP	PEIEEY	AMEL	LCKEM	VTFLD	KLGI	PQAVFI	GHDWAG	VWVW	NMALFY	PERV	RAVAS	LNTPF
MPPD	PDVSPM	KVIR	SIPVFN	YQLY	FQEPGV	AEAELE	KNMS	RTFKS	SFFRAS	DETGFI	AVHK	ATEIGG	ILVN	TPEDPN	LSKI	TTEEE	IEFYI
QQFK	KTGFRG	PLNWYR	NTER	NWKWS	CKGLG	RKIL	VPALMV	TAEKD	IVLRP	EMSK	NMEKWI	PFLKR	GHIED	CGHWTQ	IEKP	TEVNI	QILIKW
LQTEV	QNPSV	TSKI															



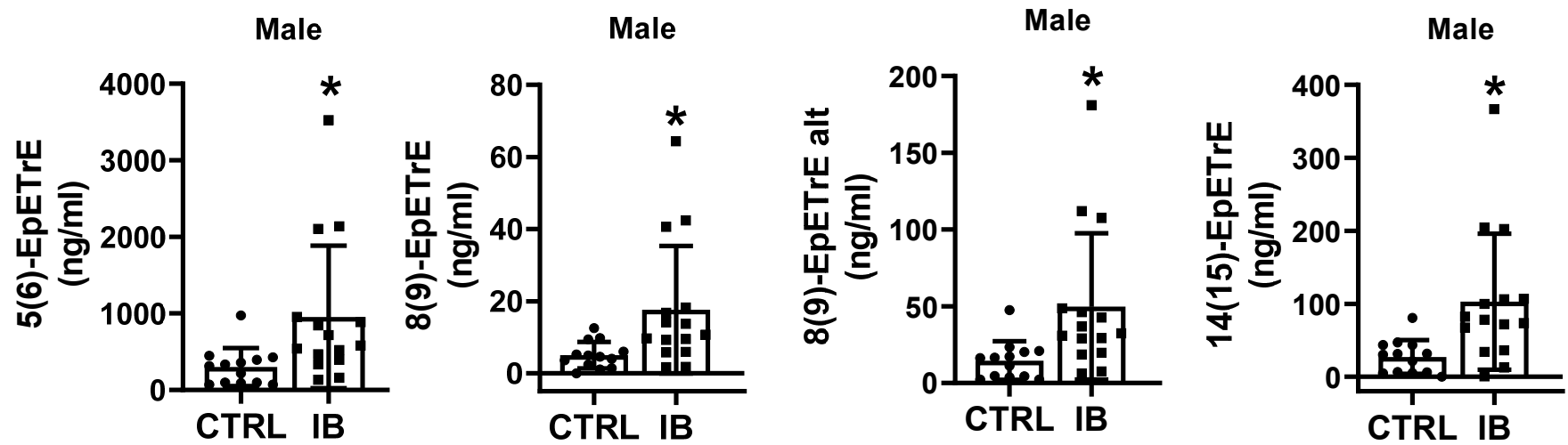
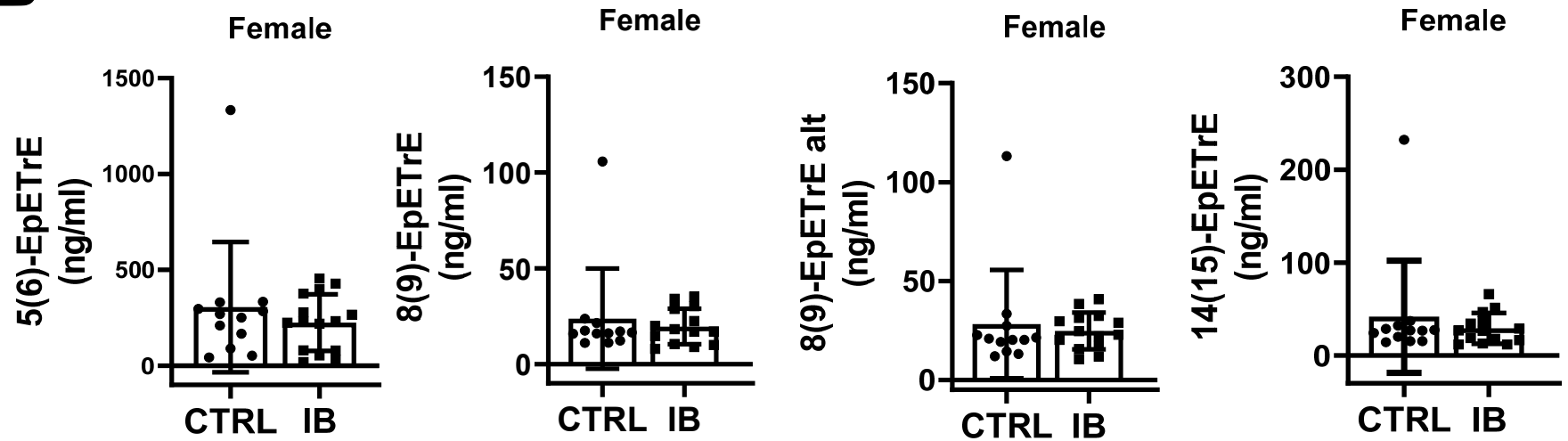
Supplemental Figure 1.

HYEP_MOUSE (100%) 52,578.7 Da
Epoxide hydrolase 1 OS=Mus musculus OX=10090 GN=Ephx1 PE=1 SV=2

MWLELILASV	LGFVIYWFVS	RDKKEETLPLE	DGWWGPGSKP	SAKEDESIRP	FKVETSDEEI	KDLHORIDRF	RASPPLLEGSR	FHYGFNSSL
KKVVSFWRNE	FDWRKQVEIL	NQYPHFKT	EGLDIHFHIV	KPPQLPSGR	PKPLLMVHGW	PGSFYEFYK	IPLLTDPKTH	GLSDEHVFV
ICPSIPGYGF	SEASSKGLN	SVATARIYK	LMSRLGFQKF	YIQGGDWGSL	ICTNIAQMVP	NHVKGLHLNM	SFISRNIIYSL	TPLLQGRFGR
FLGYTEKDLE	LLYPFKKVKF	YNIMRESGYL	HIQATKPDIV	GCAINDSPVG	LAAYILEKFS	TWTKSEYREL	EDGGLERKFS	LEDLLTNIMI
YWTGTIVSS	QRFYKENLGO	GVMVHRHEGM	KVFVPTGYSA	FPSEILHAPE	KWVKVKYPKL	ISYSYMERGG	HFAAFEEPKL	LAQDIRKEVS
LAELQ								

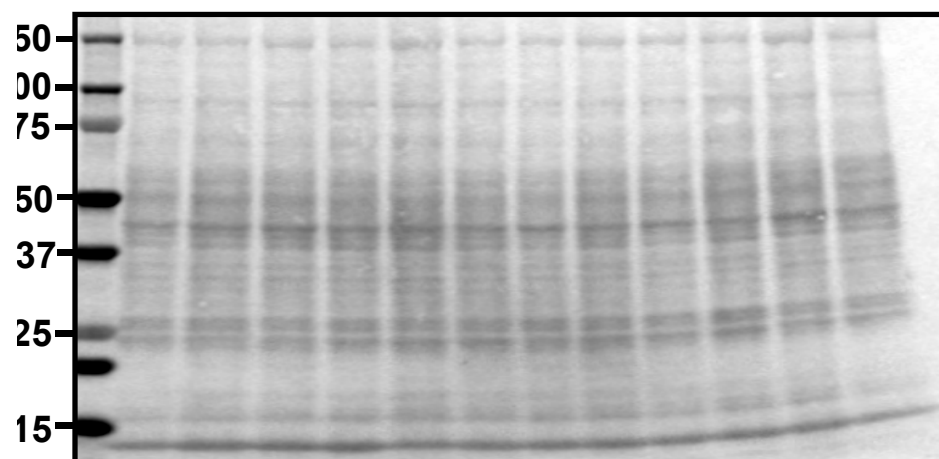


Supplemental Figure 2.

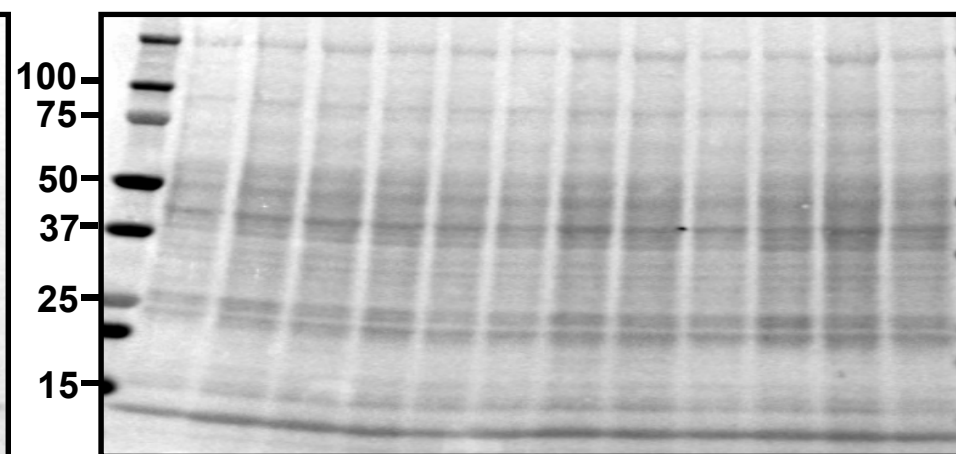
A**B**

Supplemental Figure 3

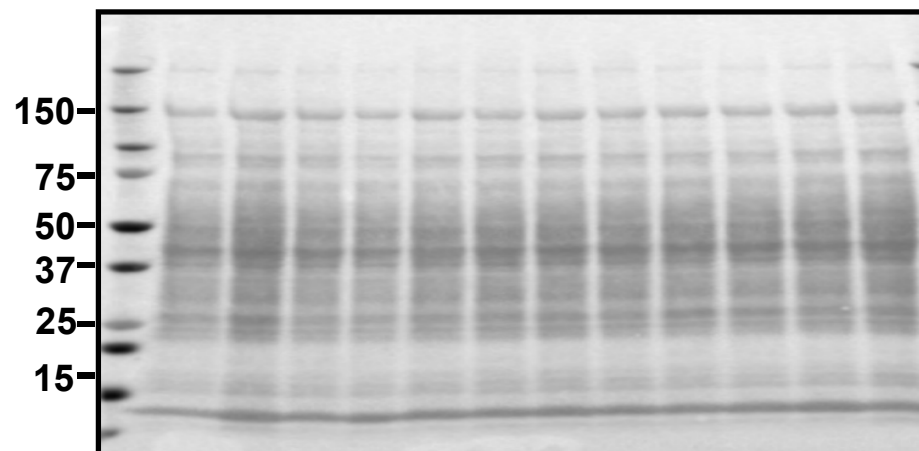
Male sEH Ponceau



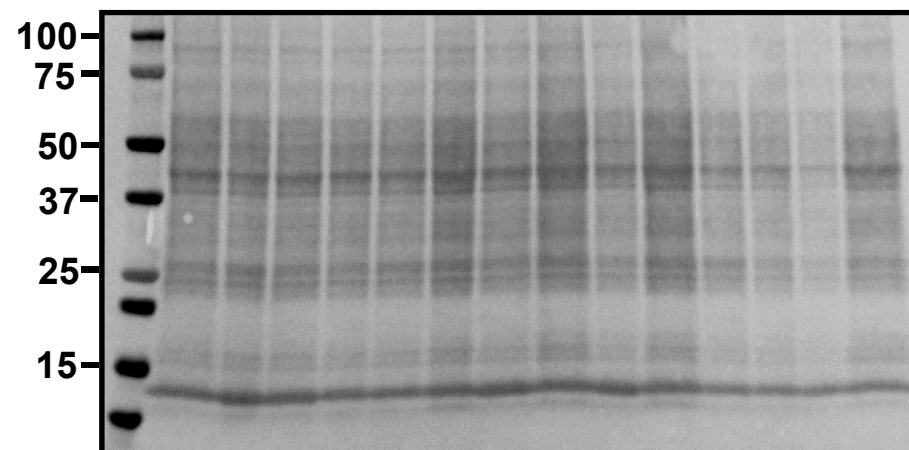
Male mEH Ponceau



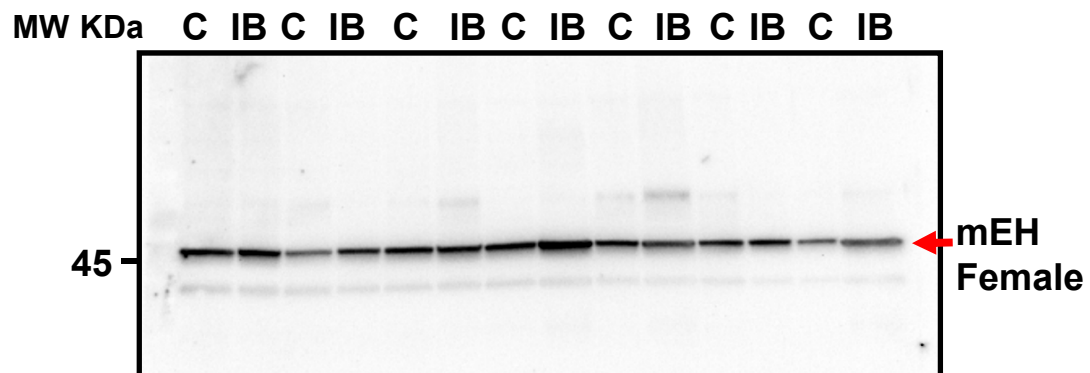
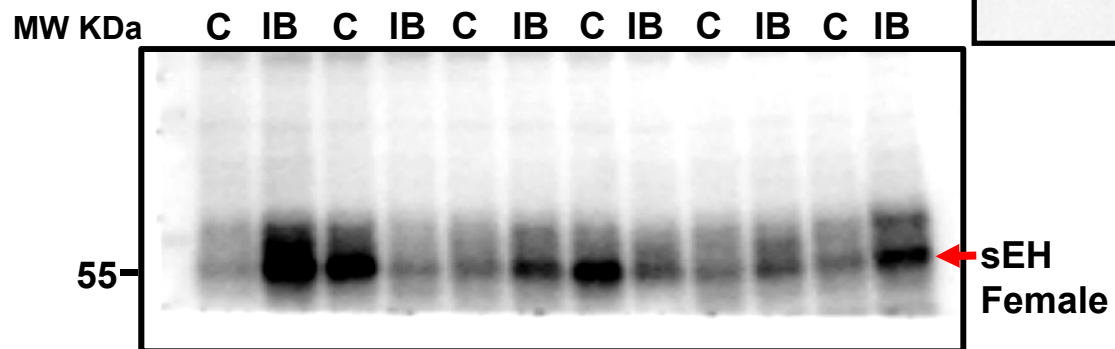
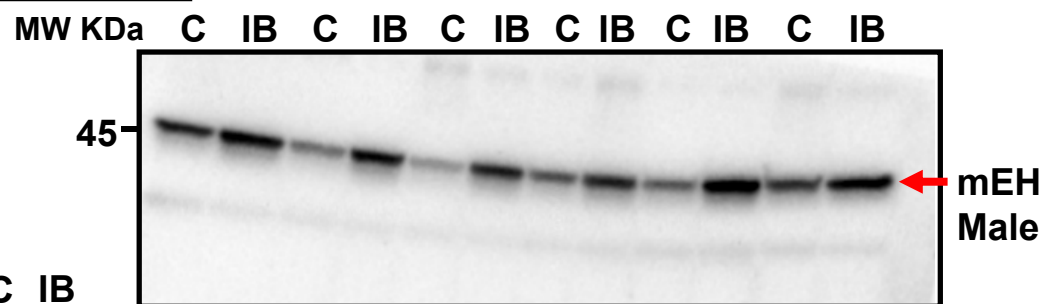
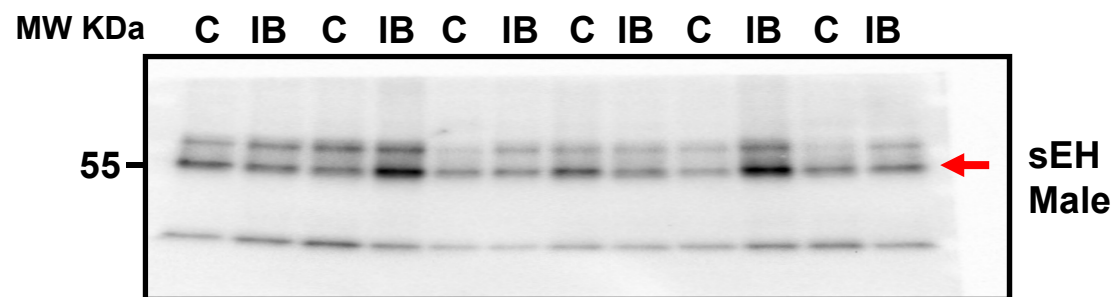
Female sEH Ponceau



Female mEH Ponceau



Supplemental Figure 4.



Supplemental Figure 5.