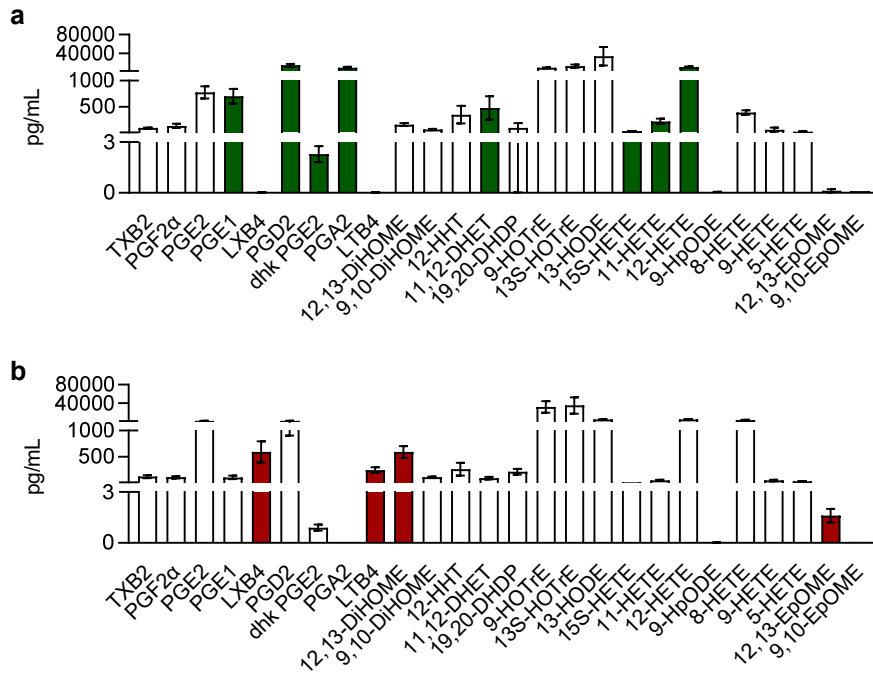
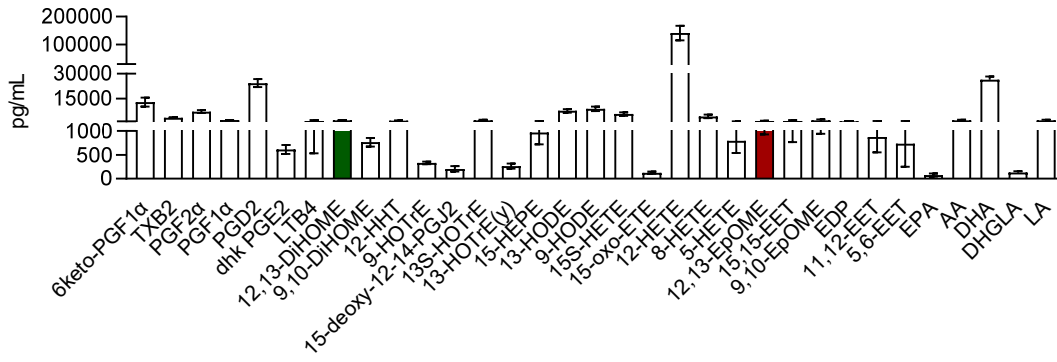
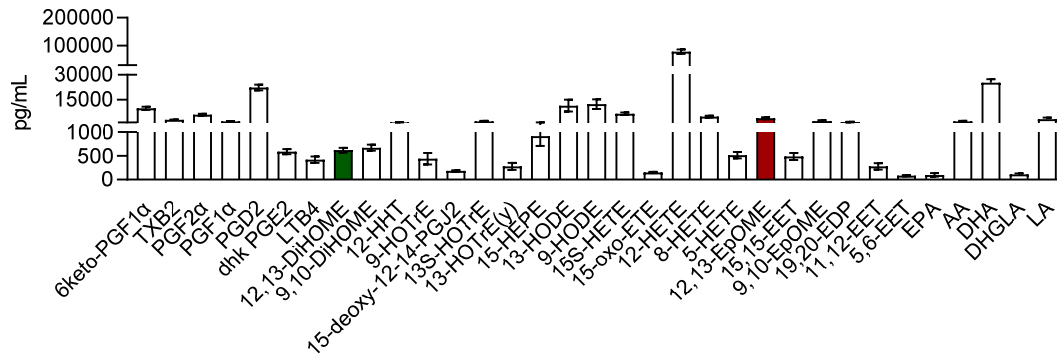


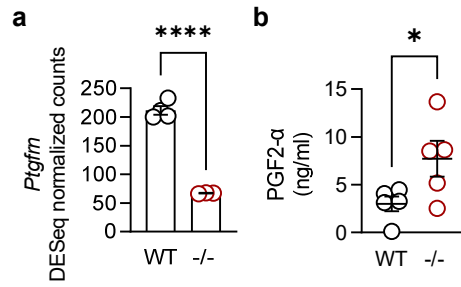
Supplementary Fig. 1. Consequences of sEH deletion on EdU incorporation into murine skin during mid anagen. EdU staining (green) in the dorsal skin of wild-type (WT) and sEH^{-/-} (-/-) mice on (a) P3 and (b) P28, bar = 100 μ m; n = 5-6 mice per group, with 15-20 follicles assessed per mouse (Student's t test). *P<0.05.



Supplementary Fig. 2. Comparison of the PUFA profile of skin in the early and late anagen stages. PUFA-derived mediators detected in the dorsal skin of wild-type mice from (a) the early (P23) and (b) the late anagen phase (P32); n=5-8 mice per group; Green bars indicate metabolites that were significantly higher on P23 while red bars indicate metabolites that were significantly enriched in P32 skin. AA, arachidonic acid; LA, linoleic acid; DHA, docosahexaenoic acid; DHGLA, dihome-gamma-linoleic acid; EPA, eicosapentaenoic acid; EET, epoxyeicosatrienoic acid; DHET, dihydroxyicosatrienoic acid; EpOME, epoxyoctadecenoic acid; DiHOME, dihydroxyoctadecenoic acid; DHDP, dihydroxyicosapentaenoic acid; PG, prostaglandin; TX, thromboxane; LTB4, leukotriene B4; HETE, hydroxyeicosatetraenoic acid; HDHA, hydroxydocosahexaenoic acid; oxoETE, oxo-eicosatetraenoic acid; HOTrE, hydroxyoctadecatrienoic acid; HEPE, hydroxyeicosapentaenoic acid; HpODE, hydroperoxyoctadecadienoic acid; HODE, hydroxyoctadecadienoic acid.

a**b**

Supplementary Fig. 3. Consequences of sEH deletion on PUFA-derived mediators. PUFA-derived mediators in hair follicles isolated from (a) wild-type and (b) sEH^{-/-} mice; n=4-5 mice per group with 25 follicles per mouse. n=5-8 mice per group; Green bars indicate metabolites that were significantly higher in wild-type hair follicles while red signifies the metabolites enriched in sEH^{-/-} follicles. AA, arachidonic acid; LA, Linoleic acid; DHA, Docosahexaenoic acid; DHGLA, dihomo-gamma-linoleic acid; EPA, Eicosapentaenoic acid; EET, epoxyeicosatrienoic acid; DHET, dihydroxyicosatrienoic acid; EpOME, epoxyoctadecenoic acid; DiHOME, dihydroxyoctadecenoic acid; DHDP, dihydroxyicosapentaenoic acid; PG, prostaglandin; TX, Thromboxane; LTB4, Leukotriene B4; HETE, hydroxyeicosatetraenoic acid; HDHA hydroxydocosahexaenoic acid; oxoETE, oxo-eicosatetraenoic acid; HOTrE, hydroxyoctadecatrienoic acid; HEPE, hydroxyeicosapentaenoic acid; HpODE, hydroperoxyoctadecadienoic acid; HODE, hydroxyoctadecadienoic acid



Supplementary Fig. 4. Consequence of sEH deletion on *ptgfrn* expression and PGF2 α levels. (a) *Ptgfrn* expression (RNA-seq) in anagen staged (P32) dorsal skin from wild-type (WT) and sEH^{-/-} (-/-) mice; n=3-4 mice per group (Student's t test). (b) PGF2 α levels in anagen staged (P32) dorsal skin from wild-type (WT) and sEH^{-/-} (-/-) mice; n=5 mice per group (Student's t test). *P<0.05, ****P<0.0001.