

| Fig 1A | | HFD | 1.83 | 1.69 | 2 | 1.63 | 1.54 | 1.72 | 1.4 | 1.68 |
|----------|---------|-----|------|------|------|------|------|------|------|------|
| Serum TG | HFD+CLA | 0.9 | 1.25 | 1.31 | 1.66 | 1.41 | 1.15 | 1.47 | 1.32 | |

| Fig 1B | | HFD | 0.0703 | 0.0675 | 0.029 | 0.0543 | 0.0332 | 0.094 | 0.0358 | 0.084 |
|-----------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Lipids in feces | HFD+CLA | 0.0652 | 0.0755 | 0.0877 | 0.0489 | 0.1201 | 0.1452 | 0.0935 | 0.1159 | |

| Fig 1C | | HFD | | | | | | | | |
|----------|-----|------|------|------|------|------|------|------|------|--|
| Serum TG | 2 h | 2.49 | 2.31 | 2.29 | 2.19 | 2.62 | 2.12 | 2.11 | 2.37 | |
| | 4 h | 3.64 | 3.61 | 3.33 | 3.11 | 3.39 | 3.46 | 3.42 | 3.57 | |
| | 6 h | 3.63 | 3.36 | 3.62 | 3.37 | 3.35 | 3.57 | 3.26 | 3.26 | |

| | | HFD+CLA | | | | | | | | |
|--|-----|---------|------|------|------|------|------|------|------|--|
| | 2 h | 2.29 | 2.14 | 2.15 | 2.4 | 2.09 | 1.47 | 1.93 | 1.65 | |
| | 4 h | 3.45 | 3.32 | 3.31 | 3.28 | 3.1 | 2.7 | 3.22 | 2.31 | |
| | 6 h | 3.13 | 3.21 | 3.15 | 3.12 | 3.2 | 2.78 | 3.21 | 3.35 | |

Fig 1E

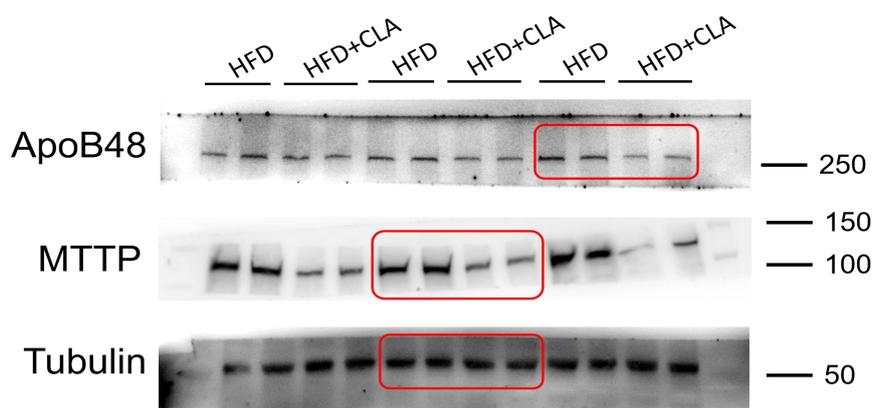


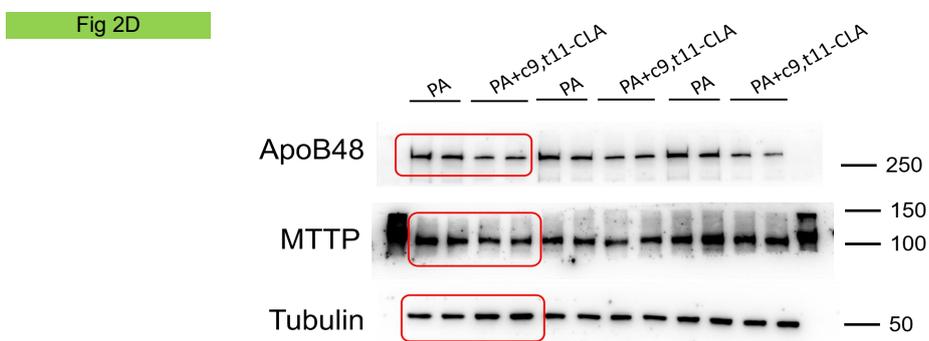
Fig 1F

| | | HFD | | | | | |
|--------|--|---------|---------|---------|---------|---------|---------|
| ApoB48 | | 1.11308 | 1.23988 | 0.78391 | 0.87661 | 1.13131 | 0.85518 |
| MTTP | | 1.21674 | 0.95975 | 0.84213 | 0.89626 | 1.14922 | 0.9359 |

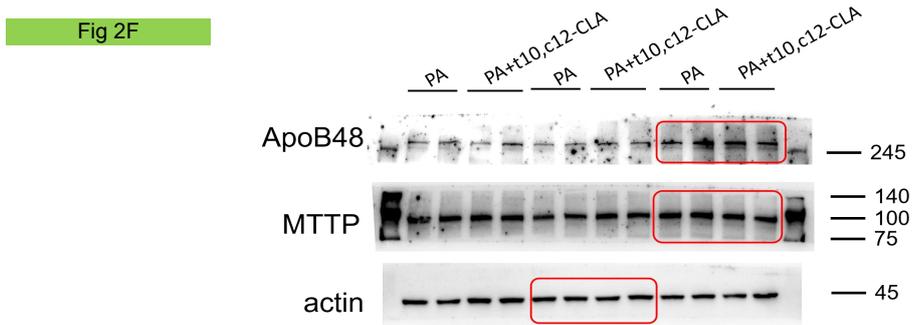
| | | HFD+CLA | | | | | |
|--------|--|---------|---------|---------|---------|---------|---------|
| ApoB48 | | 0.71204 | 0.6853 | 0.77836 | 0.9059 | 0.5375 | 0.55413 |
| MTTP | | 0.2046 | 0.24671 | 0.28986 | 0.30293 | 0.14238 | 0.17584 |

| | | | | | | | |
|--------------------|----------------|-------|-------|-------|-------|-------|-------|
| Fig 2A | PA | 33513 | 34783 | 43645 | 36068 | 31618 | 33265 |
| Fluorescence value | PA+c9,t11-CLA | 25632 | 26135 | 30758 | 28306 | 27428 | 28875 |
| | PA+t10,c12-CLA | 31025 | 36197 | 36676 | 41146 | 44092 | 33444 |

| | | | | | | | | | |
|--------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fig 2C | PA | 0.1 | 0.089 | 0.134 | 0.076 | 0.097 | 0.12 | 0.069 | 0.15 |
| TG | PA+c9,t11-CLA | 0.078 | 0.082 | 0.061 | 0.058 | 0.067 | 0.083 | 0.051 | 0.073 |
| | PA+t10,c12-CLA | 0.16 | 0.057 | 0.098 | 0.088 | 0.13 | 0.14 | 0.086 | 0.073 |



| | | | | | | | |
|--------|---------------|---------|---------|---------|---------|--------|---------|
| Fig 2E | PA | | | | | | |
| | ApoB48 | 1.1 | 0.76 | 1.29 | 1.19 | 0.87 | 0.79 |
| | MTTP | 1.31191 | 0.91546 | 0.93973 | 0.79134 | 0.8345 | 1.20701 |
| | PA+c9,t11-CLA | | | | | | |
| | ApoB48 | 0.22 | 0.29 | 0.36 | 0.47 | 0.27 | 0.12 |
| | MTTP | 0.43328 | 0.40809 | 0.46739 | 0.81203 | 1.1195 | 0.76714 |



| | | | | | | | |
|--------|----------------|---------|---------|---------|---------|---------|---------|
| Fig 2G | PA | | | | | | |
| | ApoB48 | 0.47 | 0.65 | 0.42 | 0.56 | 1.51 | 2.4 |
| | MTTP | 0.88891 | 1.17408 | 0.57361 | 0.84138 | 1.31562 | 1.20683 |
| | PA+t10,c12-CLA | | | | | | |
| | ApoB48 | 0.26 | 0.52 | 1.18 | 0.72 | 2.7 | 1.23 |
| | MTTP | 0.81942 | 0.78575 | 1.18769 | 0.84148 | 1.4626 | 0.72875 |

Fig 3B

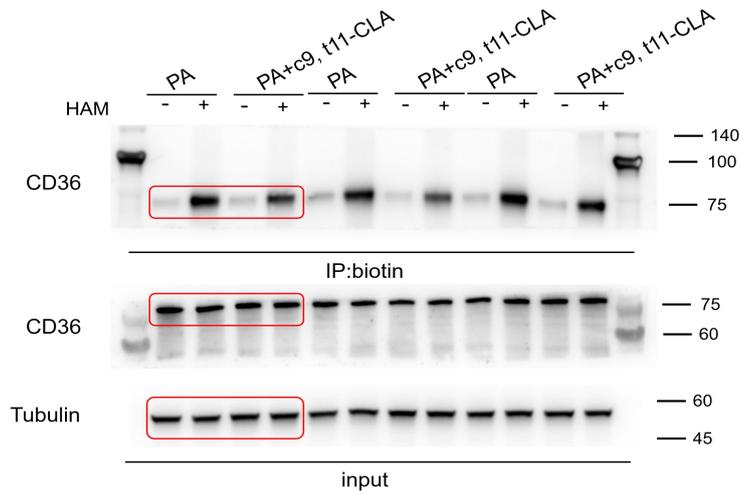


Fig 3C

| | | | |
|---------------|---------|---------|---------|
| PA | 0.84638 | 0.7679 | 1.38561 |
| PA+c9,t11-CLA | 0.26365 | 0.29108 | 0.58009 |

Fig 3D

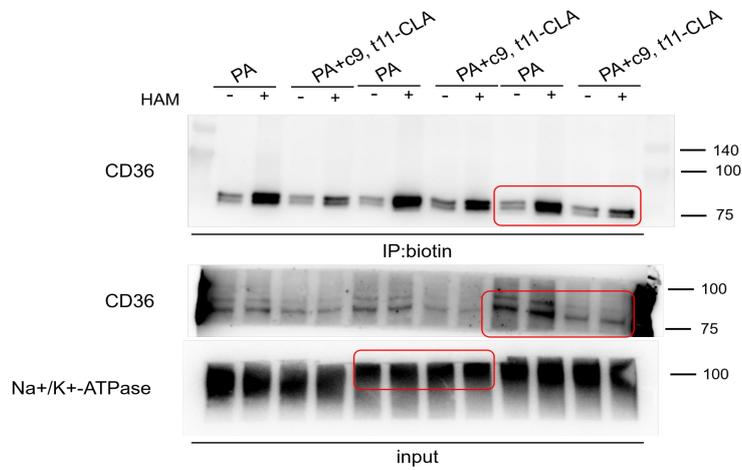


Fig 3E

| | | | |
|---------------|--------|---------|---------|
| PA | 0.9826 | 0.89129 | 1.12681 |
| PA+c9,t11-CLA | 0.2917 | 0.65871 | 0.62533 |

| Fig 4A | PA | | | | | | | |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| DHHC1 | 0.83397 | 0.93932 | 2.29304 | 0.7273 | 1.05084 | 0.77839 | 0.73894 | 0.67987 |
| DHHC2 | 0.81035 | 0.76655 | 2.23099 | 0.65185 | 0.92784 | 0.91547 | 0.89722 | 0.63798 |
| DHHC3 | 0.86544 | 0.78798 | 2.21372 | 0.65905 | 0.94783 | 0.94342 | 0.84631 | 0.74053 |
| DHHC4 | 0.54554 | 0.79129 | 2.22471 | 0.6573 | 1.03223 | 1.0037 | 0.98573 | 0.80885 |
| DHHC5 | 1.593 | 0.607 | 0.5649 | 0.355 | 0.747 | 2.008 | 1.125 | |
| DHHC6 | 0.61397 | 0.59224 | 1.52184 | 0.57351 | 0.98074 | 1.32045 | 1.33974 | 1.05418 |
| DHHC7 | 1.032 | 1.842 | 0.561 | 0.48 | 1.334 | 0.751 | | |
| DHHC8 | 1.511 | 0.643 | 0.613 | 0.316 | 0.719 | 1.947 | 1.25 | |
| DHHC9 | 0.74631 | 0.71437 | 1.85037 | 0.54115 | 0.78899 | 1.19001 | 1.14146 | 1.02271 |
| DHHC11 | 0.66775 | 0.369 | 2.15118 | 0.39872 | 0.93015 | 1.24272 | 1.20555 | 1.04674 |
| DHHC12 | 0.87647 | 0.77908 | 1.97871 | 0.67809 | 0.89994 | 0.98648 | 0.9139 | 0.8876 |
| DHHC13 | 0.69572 | 0.67398 | 1.58361 | 0.78008 | 1.21465 | 1.05402 | | |
| DHHC14 | 0.041 | 2.034 | 0.193 | 0.123 | 0.247 | 3.371 | | |
| DHHC15 | 0.63748 | 0.76736 | 1.6813 | 0.52566 | 0.63618 | 1.28917 | 1.23753 | 1.2323 |
| DHHC16 | 0.65874 | 0.72615 | 1.81798 | 0.54661 | 0.79932 | 1.56436 | 1.06547 | 0.82307 |
| DHHC17 | 0.79492 | 0.71496 | 2.2061 | 0.33361 | 1.00816 | 1.07097 | 0.92525 | |
| DHHC18 | 0.8213 | 0.6266 | 2.03751 | 0.64231 | 0.98168 | 0.97521 | 1.06091 | 0.87093 |
| DHHC19 | 0.067 | 1.588 | 0.642 | 0.487 | 0.3 | 0.302 | 2.932 | 1.694 |
| DHHC20 | 1.292 | 0.609 | 0.669 | 0.306 | 0.749 | 2.103 | 1.273 | |
| DHHC21 | 0.7712 | 0.87316 | 2.06532 | 0.71185 | 0.65383 | 0.95167 | 1.07509 | 0.90903 |
| DHHC22 | 0.75589 | 0.96258 | 3.03616 | 0.86449 | 1.03976 | 0.30744 | 0.37318 | 0.65926 |
| DHHC23 | 0.78858 | 0.69201 | 2.0779 | 0.66419 | 1.04153 | 0.89667 | 1.00442 | 0.83455 |
| DHHC24 | 0.35491 | 0.79795 | 2.09771 | 0.62797 | 0.9605 | 1.00832 | 1.2372 | 0.9165 |

| | PA+c9,t11-CLA | | | | | | | |
|--------|---------------|---------|---------|---------|---------|---------|---------|---------|
| DHHC1 | 0.89521 | 0.71597 | 0.82219 | 0.90188 | 0.78312 | 0.95288 | 1.02255 | 0.87716 |
| DHHC2 | 1.07995 | 0.63284 | 0.8477 | 0.85971 | 0.61261 | 1.30278 | 1.16611 | 1.07366 |
| DHHC3 | 1.45298 | 0.99836 | 1.0032 | 1.03462 | 1.4088 | 1.33273 | 1.18912 | 0.64563 |
| DHHC4 | 1.21813 | 0.81034 | 0.7217 | 1.3181 | 1.07412 | 1.56548 | 1.55943 | 1.20622 |
| DHHC5 | 0.313 | 0.257 | 0.288 | 0.297 | 0.786 | 0.541 | | |
| DHHC6 | 1.54192 | 1.20355 | 1.55892 | 1.7708 | 1.66859 | 1.11994 | 0.99101 | 0.95159 |
| DHHC7 | 0.405 | 0.346 | 0.379 | 0.251 | 0.484 | 0.387 | | |
| DHHC8 | 0.846 | 0.831 | 1.003 | 0.721 | 1.782 | 1.503 | | |
| DHHC9 | 1.46623 | 1.04689 | 1.00665 | 1.35965 | 0.97715 | 1.29883 | 1.34974 | 1.34672 |
| DHHC11 | 1.56811 | 0.83153 | 1.14984 | 1.24735 | 1.08744 | 1.67752 | 1.42311 | 1.34521 |
| DHHC12 | 1.41637 | 0.9284 | 0.9705 | 1.041 | 0.89606 | 1.29151 | 0.60926 | 1.00919 |
| DHHC13 | 1.69391 | 1.14719 | 1.22735 | 1.41335 | 1.2174 | 1.17385 | 1.1995 | 1.15851 |
| DHHC14 | 0.449 | 0.356 | 0.297 | 0.162 | 2.273 | 2.001 | 0.773 | |
| DHHC15 | 1.09948 | 1.45053 | 1.22068 | 1.13914 | 1.75164 | 1.56669 | 1.3472 | |
| DHHC16 | 1.40447 | 0.99099 | 1.18343 | 1.17952 | 1.02728 | 1.42327 | 1.4883 | 1.38363 |
| DHHC17 | 1.9776 | 1.04007 | 1.2779 | 1.4064 | 1.07577 | 1.49137 | 1.81552 | 0.8457 |
| DHHC18 | 1.81853 | 1.33358 | 1.38955 | 1.53766 | 1.07542 | 1.49862 | 1.31481 | 0.0214 |
| DHHC19 | 0.742 | 0.394 | 0.847 | 0.451 | 1.119 | 3.902 | 0.831 | |
| DHHC20 | 0.394 | 0.258 | 0.242 | 0.225 | 0.805 | 0.507 | | |
| DHHC21 | 1.04645 | 1.38662 | 1.3659 | 1.1519 | 1.29586 | 1.55671 | 1.58719 | 0.46326 |
| DHHC22 | 0.912 | 0.94631 | 1.04056 | 1.23599 | 1.00051 | 1.71749 | 1.4347 | 0.65732 |
| DHHC23 | 1.27216 | 0.86225 | 1.09155 | 1.12419 | 1.02275 | 1.38442 | 1.58447 | |
| DHHC24 | 1.24227 | 0.80293 | 0.98289 | 1.04155 | 0.81796 | 1.5549 | 1.63234 | 3.4013 |

Fig 4B

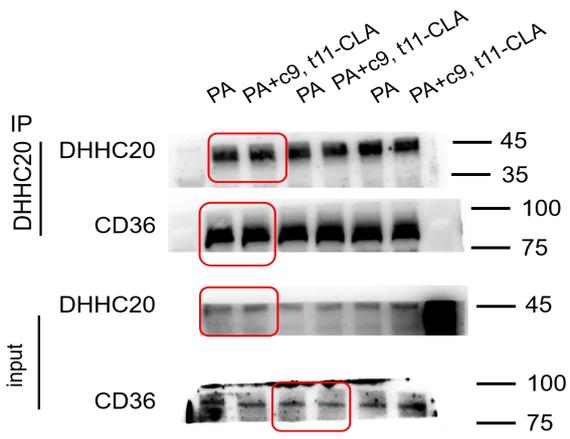
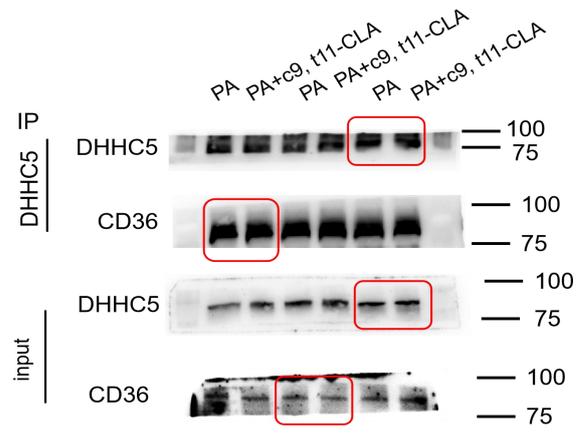
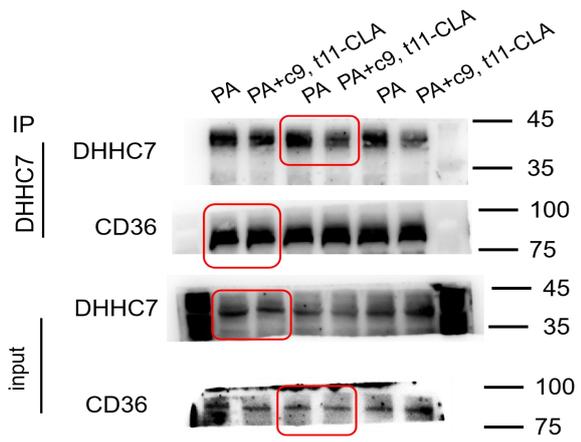


Fig 5A

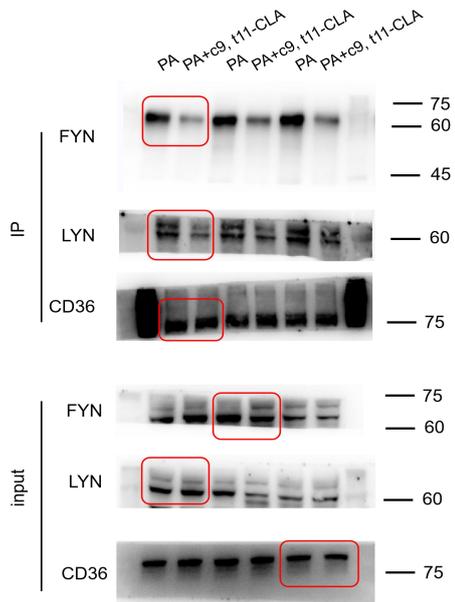
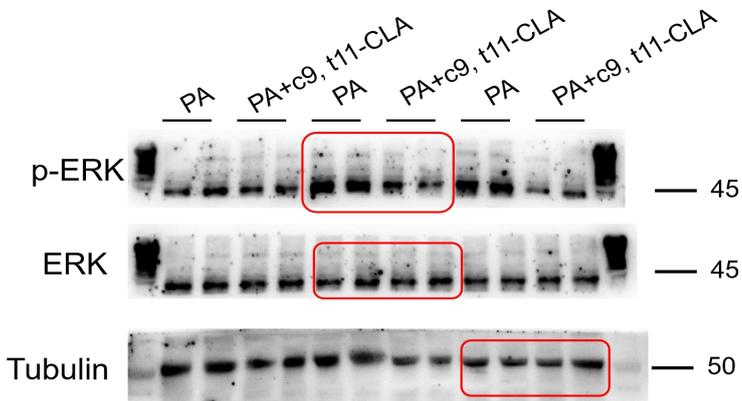


Fig 5B



| Fig 5C | PA | 0.35 | 0.68 | 1.63 | 0.89 | 1.24 | 1.21 |
|--------|----------------|------|------|------|------|------|------|
| | PA+c9, t11-CLA | 0.46 | 0.47 | 0.94 | 0.36 | 0.19 | 0.27 |

Fig 6A

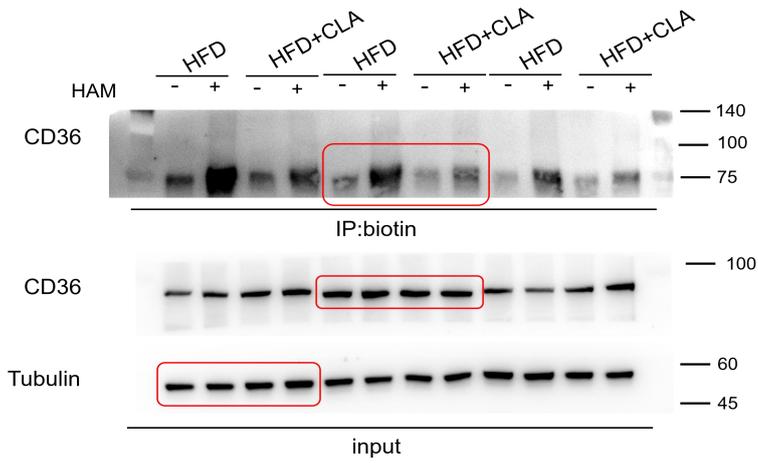


Fig 6B

| | | | |
|---------|---------|---------|---------|
| HFD | 1.24205 | 0.48188 | 1.28209 |
| HFD+CLA | 0.16486 | 0.15685 | 0.12514 |

Fig 6C

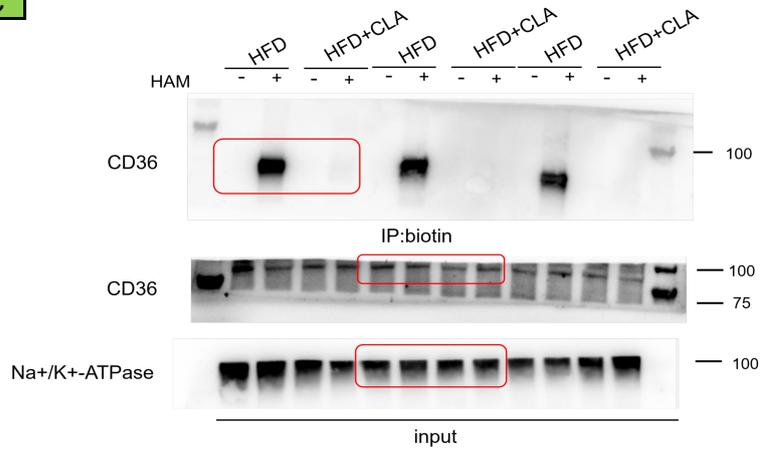


Fig 6D

| | | | |
|---------|---------|---------|--------|
| HFD | 1.15746 | 1.24727 | 0.5955 |
| HFD+CLA | 0.01793 | 0.03958 | 0.0284 |

| Fig 6E | HFD | | | | | | | |
|--------|------------|---------|---------|---------|---------|---------|---------|---------|
| DHHC1 | 1.14050289 | 1.9445 | 1.00522 | 0.96846 | 1.20968 | 0.88149 | 0.53878 | 0.35832 |
| DHHC2 | 0.77462532 | 1.10419 | 1.17883 | 1.12728 | 1.30361 | 1.14971 | 0.85656 | 0.52716 |
| DHHC3 | 0.94656699 | 1.15185 | 0.98396 | 1.07254 | 1.19665 | 1.28219 | 0.82856 | 0.54666 |
| DHHC4 | 0.85223241 | 1.22813 | 1.1904 | 1.17362 | 1.19184 | 1.09912 | 0.7391 | 0.55745 |
| DHHC5 | 1.17430245 | 1.23527 | 0.80144 | 1.10412 | 1.20931 | 1.23567 | 0.78531 | 0.461 |
| DHHC6 | 0.82902699 | 1.11531 | 1.1842 | 1.03236 | 1.28987 | 1.13025 | 0.91509 | 0.50713 |
| DHHC7 | 0.96 | 1.333 | 1.00818 | 1.01574 | 0.91065 | 1.34332 | 0.81789 | 0.65849 |
| DHHC8 | 0.926 | 1.032 | 0.99 | 1.163 | 1.46 | 0.896 | 0.544 | |
| DHHC9 | 0.88725632 | 1.187 | 1.19101 | 1.13182 | 1.35209 | 1.05856 | 0.73911 | 0.48056 |
| DHHC11 | 0.25335841 | 1.04656 | 0.92676 | 0.89824 | 0.97974 | 1.89299 | 1.18628 | 0.86188 |
| DHHC12 | 0.77601709 | 1.15386 | 0.90032 | 1.09742 | 1.57543 | 1.3185 | 0.83673 | 0.56382 |
| DHHC13 | 0.71983967 | 1.04844 | 1.20643 | 1.46147 | 1.2289 | 0.84943 | 0.51497 | |
| DHHC14 | 0.88212127 | 1.11771 | 1.21696 | 1.09612 | 1.3135 | 1.0379 | 0.811 | 0.585 |
| DHHC15 | 0.92496622 | 1.45935 | 0.98816 | 0.94743 | 1.26 | 1.27673 | 0.7496 | 0.45484 |
| DHHC16 | 0.9393558 | 1.20013 | 1.09572 | 1.08427 | 1.27831 | 1.1656 | 0.75741 | 0.48145 |
| DHHC17 | 1.00646643 | 1.49969 | 1.29672 | 1.05741 | 1.24889 | 1.14772 | 0.42087 | 0.33382 |
| DHHC18 | 0.96688534 | 1.39831 | 1.33385 | 0.84774 | 1.22898 | 1.10325 | 0.62297 | 0.52564 |
| DHHC19 | 0.118 | 0.141 | 0.154 | 1.402 | 1.621 | 1.338 | 2.081 | 1.214 |
| DHHC20 | 0.917 | 1.738 | 1.046 | 0.747 | 1.092 | 1.013 | 1.077 | 0.43 |
| DHHC21 | 0.9241166 | 1.19375 | 1.16003 | 1.13009 | 1.20965 | 1.18568 | 0.71052 | 0.50086 |
| DHHC22 | 0.18691053 | 0.27737 | 0.26721 | 1.393 | 1.75209 | 1.43844 | 1.71755 | 0.98101 |
| DHHC23 | 0.86521692 | 1.26416 | 1.3076 | 1.16667 | 1.32618 | 0.99519 | 0.64319 | 0.45081 |
| DHHC24 | 0.83685263 | 1.36214 | 0.9467 | 0.87559 | 1.21859 | 1.35838 | 0.8511 | 0.57447 |

| | HFD+CLA | | | | | | | |
|--------|------------|---------|---------|---------|---------|---------|---------|----------|
| DHHC1 | 0.70896091 | 1.44234 | 1.2725 | 2.25653 | 2.36846 | 0.69075 | 0.79515 | 0.83259 |
| DHHC2 | 0.81798358 | 1.16564 | 0.94145 | 1.47139 | 1.41775 | 1.06821 | 1.17617 | 1.37181 |
| DHHC3 | 0.68206404 | 1.10487 | 0.75146 | 1.48595 | 1.47549 | 0.92021 | 1.12536 | 1.33853 |
| DHHC4 | 0.71140948 | 1.08657 | 1.21543 | 1.85781 | 1.86024 | 1.1337 | 1.05465 | 1.50036 |
| DHHC5 | 0.2532431 | 0.39644 | 0.34898 | 0.60334 | 0.52956 | 0.31302 | 0.34805 | 0.33622 |
| DHHC6 | 0.80141364 | 1.46709 | 0.89297 | 1.7986 | 1.59028 | 1.13744 | 1.23984 | 1.34653 |
| DHHC7 | 0.24648022 | 0.30257 | 0.28499 | 0.40871 | 0.46222 | 0.22062 | 0.19479 | 0.25741 |
| DHHC8 | 0.641 | 1.147 | 1.16184 | 1.7114 | 1.90354 | 1.31083 | 1.42212 | |
| DHHC9 | 0.62666624 | 1.13686 | 1.20338 | 1.80252 | 2.31361 | 0.88426 | 0.97727 | 1.23115 |
| DHHC11 | 0.39864819 | 0.88142 | 0.326 | 0.24345 | 0.57065 | 1.16879 | 1.64989 | 1.40448 |
| DHHC12 | 0.8335608 | 1.88022 | 0.90217 | 1.37944 | 1.47648 | 1.13915 | 1.21074 | 1.47093 |
| DHHC13 | 0.76247554 | 1.44996 | 1.38649 | 2.20074 | 2.34384 | 0.71353 | 0.84005 | 0.98281 |
| DHHC14 | 0.545 | 0.839 | 1.174 | 1.15877 | 1.81135 | 1.2022 | 1.22466 | 1.3179 |
| DHHC15 | 2.53633156 | 4.67724 | 0.57065 | 1.37029 | 0.96081 | 0.97897 | 1.08359 | 1.44656 |
| DHHC16 | 0.52611059 | 0.94663 | 0.9648 | 1.36952 | 1.83551 | 1.13974 | 1.23399 | 1.41506 |
| DHHC17 | 0.59127226 | 1.3275 | 1.17401 | 1.76925 | 1.59893 | 0.84528 | 0.9129 | 1.09795 |
| DHHC18 | 0.34080544 | 0.97974 | 0.6119 | 1.74854 | 1.78785 | 0.83655 | 1.3012 | 3.42E-03 |
| DHHC19 | 2.68 | 4.13483 | 5.41034 | 1.11579 | 1.07055 | 0.54557 | 0.09415 | 0.14858 |
| DHHC20 | 0.29393857 | 0.45229 | 0.44915 | 0.79142 | 0.70464 | 0.35358 | 0.35733 | 0.38439 |
| DHHC21 | 0.64025999 | 1.17273 | 1.06389 | 1.66583 | 1.89748 | 0.92171 | 1.04305 | 1.08933 |
| DHHC22 | 1.69716471 | 2.952 | 3.39019 | 1.15931 | 1.50924 | 0.57957 | 0.23944 | 0.27573 |
| DHHC23 | 0.66728107 | 1.36593 | 1.39609 | 2.06684 | 1.8697 | 0.81866 | 0.84705 | 1.10121 |
| DHHC24 | 0.70163938 | 1.35334 | 1.16126 | 1.90472 | 1.95556 | 1.11972 | 1.25476 | 1.40637 |

Fig 6F

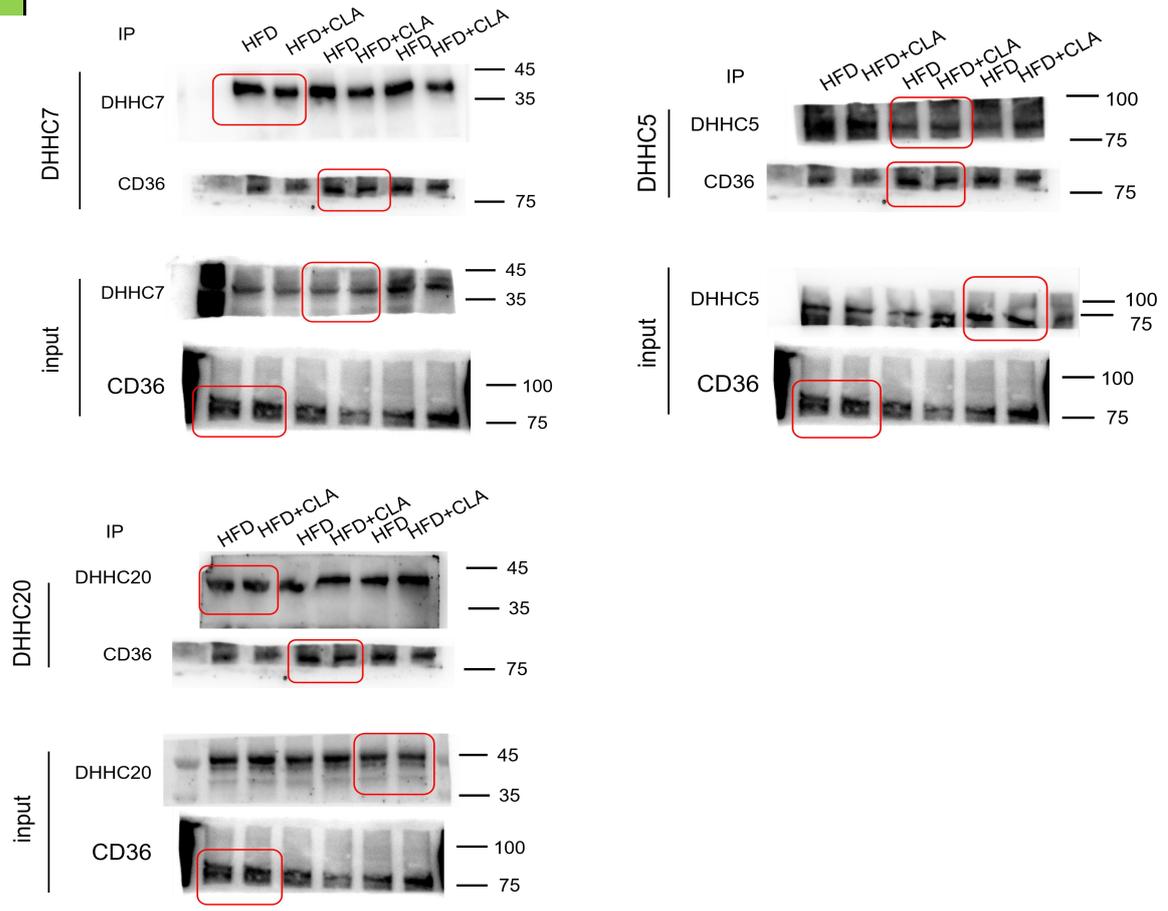


Fig 6G

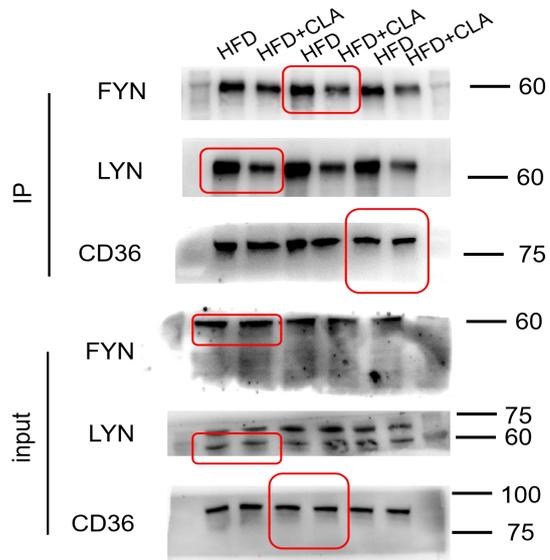


Fig 6H

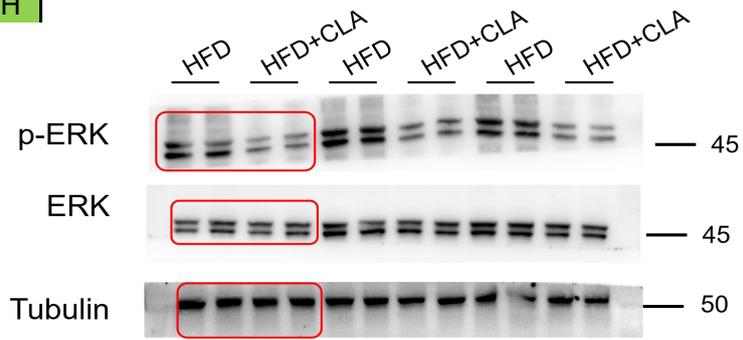


Fig 6I

| | | | | | | |
|---------|------|------|------|------|------|------|
| HFD | 1.18 | 1.14 | 1.19 | 1.16 | 0.71 | 0.62 |
| HFD+CLA | 0.28 | 0.51 | 0.44 | 0.51 | 0.37 | 0.35 |

| | | | | | | | | | |
|-------|---------|------|------|------|------|------|------|------|------|
| FS1 A | HFD | 15.5 | 14.8 | 16.7 | 13.9 | 15.4 | 16.1 | 17.2 | 15.3 |
| | HFD+CLA | 16.6 | 16.9 | 18.2 | 13.7 | 15.5 | 15.7 | 16.2 | 15.4 |

| | | | | | | | | | |
|-------|---------|------|------|-------|------|------|-------|-------|-------|
| FS1 B | HFD | 37.5 | 34.4 | 32.03 | 36.1 | 36.7 | 35.23 | 34.68 | 43.88 |
| | HFD+CLA | 30.2 | 27.9 | 32.1 | 26.5 | 24.3 | 26.1 | 30.5 | 28.6 |

| | | | | | | | | | |
|-------|---------|------|------|------|------|------|------|------|------|
| FS1 C | HFD | 25.3 | 29.8 | 33.4 | 27.5 | 32.1 | 37.6 | 35.8 | 45.7 |
| | HFD+CLA | 12.2 | 16.8 | 15.1 | 22.7 | 14.5 | 24.9 | 20.7 | 18.7 |

| | | | | | | | | | |
|-------|------|---------|---------|---------|---------|---------|---------|---------|-------|
| FS1 D | | HFD | | | | | | | |
| | iWAT | 1.49465 | 4.66176 | 3.29784 | 3.47067 | 2.98982 | 5.52529 | 4.46443 | 3.786 |
| | vWAT | 2.89773 | 5.69385 | 5.82111 | 4.39587 | 6.17612 | 4.31504 | 7.17928 | 4.352 |

| | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| | HFD+CLA | | | | | | | |
| | 0.76573 | 0.66923 | 0.92928 | 0.78876 | 1.00612 | 1.42441 | 0.57097 | 0.64458 |
| | 0.93271 | 1.73413 | 1.79435 | 3.93175 | 1.77065 | 3.93008 | 4.27197 | 3.21014 |