Extraction
Obtain 30 healthy, freshly eclosed flies and freeze them at –80°C for 5 min
Add 200 μL Buffer A (see below) and grind with tissue grinder (blue, plastic) ~5 min (tissue grinder should be cleaned with detergent before use)
Add 200 μL Buffer A and continue to grind until only pieces of cuticle remain
Incubate at 65°C for 30 min
Add 800 μL 1:2.5 [5M]KOAc:[6M]LiCl
Precipitate on ice for 10 min
Centrifuge at 14000 rpm for 15 min
Transfer supernatant to 2 eppendorf tubes noting volume in each tube
Add 700 μL Isopropanol per ml supernatant (7/10 volume)
Centrifuge at 14000 rpm for 15 min
Remove supernatant
Wash with 1 mL cold Ethanol
Centrifuge at 14000 rpm for 5 min
Remove supernatant and resuspend in 100 μL TE

Crude Purification and Precipitation/Resuspension
Wash with 150 μL Phenol (tris-buffered)
Transfer aqueous (top) layer to new eppendorf tube (be careful to avoid transferring material at the meniscus as unwanted protein (junk) will be concentrated here, between the aqueous and organic layers)
Wash with 150 μL (25:24:1) Phenol : Chloroform : Isoamyl Alcohol
Transfer aqueous (top) layer to new eppendorf tube as before
Wash with 150 μL (24:1) Chloroform : Isoamyl Alcohol
Transfer aqueous (top) layer to new eppendorf tube

Use 200 μL Micro-Pipette to note exact volume of solution
Add 1/10 volume [3M] NaOAc (pH 5.2) and 2x volume 100% Ethanol
Mix well and chill at -80°C for 15 min
Centrifuge at 14000 rpm for 15 min
Remove Ethanol and add 1 mL cold 70% Ethanol and mix
Centrifuge at 14000 rpm for 5 min
Remove 70% Ethanol and dry
Resuspend in 100 μL TE
Buffer A
100mM Tris-HCl, pH 7.5
100mM EDTA
100mM NaCl
0.5% SDS

LiCl/KAc solution
Mix 1 part 5M KAc to 2 parts 6M LiCl