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UC Davis - High fat diet feeding

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Kristin Evans¹

¹University of California, Davis

Mouse Metabolic Phenotyping Centers
Tech. support email: info@mmpc.org



Lili Liang

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Protocol status: Working

We use this protocol in our group and it is working.

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Abstract

Summary

A high-fat diet of varying composition and percent fat is administered to induce obesity in mice. High-fat diet induced obesity is causally associated with insulin resistance and type 2 diabetes. Diets will be provided in consultation with the investigator needs. This service applies to specialized feeding for vendor supplied animals being supplied out of the UC Davis vendor approved barrier facility.



Materials

MATERIALS

☒ Teklad 2918 (18% kcal from fat) **Envigo (Harlan) Catalog #Teklad 2918**

☒ TD.06415 (45% kcal from fat) **Envigo (Harlan) Catalog #TD.06415**

☒ TD.06414 (60% kcal from fat) **Envigo (Harlan) Catalog #TD.06414**

☒ D12450B (10% kcal from Fat) **Research Diets Inc Catalog #D12450B**

☒ D12451 (45% kcal from fat) **Research Diets Inc Catalog #D12451**

☒ D12492 (60% Kcal from fat) **Research Diets Inc Catalog #D12492**

☒ 58Y1 (60% kcal from fat) **Purina Test Diet® Catalog #58Y1**

☒ 58V8 (45% Kcal from fat) **Purina Test Diet® Catalog #58V8**

☒ 58Y2 (10% kcal from fat) **Purina Test Diet® Catalog #58Y2**

☒ Mouse cohorts for feeding **The Jackson Laboratory Catalog #C57BL/6J**

☒ Mouse cohorts for feeding **Charles River Catalog #C57BL/6NCrI**

☒ Mouse cohorts for feeding **Taconic Catalog #C57BL/6NTac**

NOTE:

Harlan Teklad Research Diet, Purina Test Diet, and Research Lab Diets must be irradiated and vacuum sealed.

Jackson Laboratory, RRID:SCR_004633

Charles River Laboratories, RRID:SCR_003792

Taconic Biosciences, RRID:SCR_016410

C57BL/6J, IMSR Cat# JAX:000664, RRID:IMSR_JAX:000664

C57BL/6NCrI, IMSR Cat# CRL:27, RRID:IMSR_CRL:27

C57BL/6NTac, IMSR Cat# TAC:b6, RRID:IMSR_TAC:b6

Troubleshooting



- 1 High-fat diet is given ad libitum in mice. Typically mice are started on the diet at 6 weeks of age (for C57BL/6 strains). Age at diet start will be begin in consultation with the investigator needs
- 2 A stock bag of high-fat diet should be stored in a refrigerator.
- 3 High-fat diet placed in cages should be replaced 2 times a week to avoid spoilage.
- 4 Mice will typically eat more in the first 2 weeks of high fat diet feeding. Careful attention to diet intake will be taken during this time.
- 5 Diet intake measurement and animal weights may be taken in consultation with the investigator as a separate service.