

**45%kcal Fat Diet (21% MF, 2% SBO)****Formula****g/Kg**

Casein	195.0
L-Cystine	3.0
Sucrose	340.0
Corn Starch	56.86
Maltodextrin	60.0
Anhydrous Milkfat	210.0
Soybean Oil	20.0
Cellulose	50.0
Mineral Mix, AIN-93G-MX (94046)	43.0
Vitamin Mix, AIN-93-VX (94047)	19.0
Choline Bitartrate	3.0
TBHQ, antioxidant	0.04
Green Food Color	0.1

**Footnote**

Designed with similarities to TD.88137 Western Diet with 21% anhydrous milk fat and 34% sucrose. 2% soybean oil is included to supplement essential fatty acids and the more modern AIN-93 mineral and vitamin mixes are used. Modified corn starch (maltodextrin) replaces a portion of the regular corn starch to improve pellet quality. Approximate fatty acid profile (% of total fat): 61% SFA, 30% MUFA, 9% PUFA.

**Selected Nutrient Information<sup>1</sup>**

	% by weight	% kcal from
<b>Protein</b>	17.3	14.7
<b>Carbohydrate</b>	47.6	40.7
<b>Fat</b>	23.2	44.6
<b>Kcal/g</b>	<b>4.7</b>	

<sup>1</sup> Values are calculated from ingredient analysis or manufacturer data

**Speak With A Nutritionist**

- + **(800) 483-5523**
- + [askanutritionist@envigo.com](mailto:askanutritionist@envigo.com)

Teklad diets are designed & manufactured for research purposes only.

**Key Features**

- + Purified Diet
- + Diet Induced Obesity
- + Anhydrous Milkfat
- + Sucrose

**Key Planning Information**

- + Products are made fresh to order
- + Store product at 4°C or lower
- + Use within 6 months (applicable to most diets)
- + Box labeled with product name, manufacturing date, and lot number
- + Replace diet at minimum once per week  
*More frequent replacement may be advised*
- + Lead time:
  - 2 weeks non-irradiated
  - 4 weeks irradiated

**Product Specific Information**

- + 1/2" Pellet or Powder (free flowing)
- + Minimum order 3 Kg
- + Irradiation available upon request

**Options (fees will apply)**

- + Rush order (pending availability)
- + Irradiation (see Product Specific Information)
- + Vacuum packaging (1 and 2 Kg)

**Contact Us**

Obtain pricing · Check order status

- + [teklad@envigo.com](mailto:teklad@envigo.com)
- + **(800) 483-5523**

**International Inquiry (outside USA or Canada)**

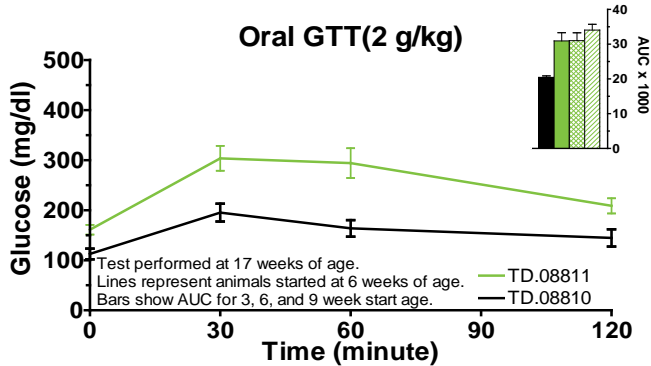
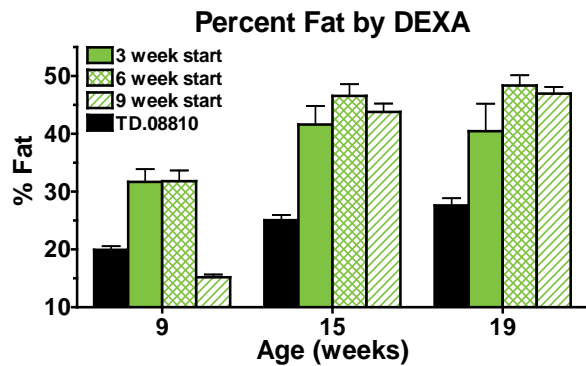
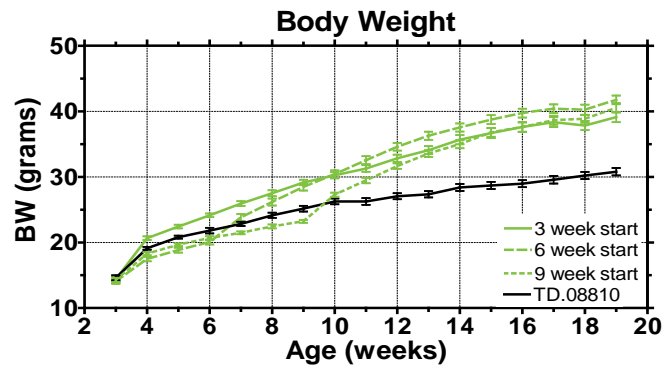
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# Phenotype of C57BL/6NHsd Male Mice Fed TD.08811 or TD.08810



## Key Findings

Male C57BL6/N mice started on TD.08811 at 3, 6, or 9 weeks of age develop similar degrees of obesity shown by rapid increase in body weight and percent fat mass.

Mice started on TD.08811 between 3-9 weeks of age develop impaired glucose tolerance by 17 weeks of age.

Mice fed TD.08811 develop hyperinsulinemia, hyperleptinemia, and exhibit increased liver accumulation of lipids.

The graphs **above** represent data obtained from male C57BL/6NHsd mice started on irradiated TD.08811 at 3, 6, or 9 weeks of age (16 mice/start age). Control animals were fed an irradiated purified diet TD.08810, or autoclaved natural ingredient diet 2018S. The data in the tables **below** is from a second cohort of mice started on the diets at 3 weeks of age. Prior to oral glucose tolerance test and collection of fasting values, mice were fasted for 6 hours (6am-12pm). Data are shown as mean  $\pm$  SEM.

### Additional Phenotype Data

11-12 weeks of age	TD.08811	TD.08810 <sup>t</sup>	2018S <sup>tt</sup>
Body Weight (g, n=20)	32.4 $\pm$ 0.6	25.6 $\pm$ 0.3	25.0 $\pm$ 0.3
Percent Fat by NMR (n=20)	34.3 $\pm$ 1.0	19.2 $\pm$ 0.6	17.7 $\pm$ 0.4
Liver Triglyceride (mg/g liver, n=5)	102.8 $\pm$ 28.6	27.2 $\pm$ 3.9	34.9 $\pm$ 2.4
Fasted Total Cholesterol (mg/dl, n=20)	221 $\pm$ 9	119 $\pm$ 3	141 $\pm$ 3
Fasted Glucose (mg/dl, n=20)	139 $\pm$ 3	113 $\pm$ 2	120 $\pm$ 2
Fasted Insulin (ng/ml, n=20)	2.5 $\pm$ 0.2	0.8 $\pm$ 0.1	0.7 $\pm$ 0.1
Non-fasted Leptin (ng/ml, n=20)	*42.9 $\pm$ 6.6	3.0 $\pm$ 0.6	2.5 $\pm$ 0.2
19-20 weeks of age	TD.08811	TD.08810 <sup>t</sup>	2018S <sup>tt</sup>
Body Weight (g, n=14-20)	42.5 $\pm$ 0.4	29.4 $\pm$ 0.5	28.1 $\pm$ 0.5
Percent Fat by NMR (n=14-20)	43.3 $\pm$ 1.0	24.1 $\pm$ 0.7	21.8 $\pm$ 1.2
Liver Triglyceride (mg/g liver, n=5)	282.4 $\pm$ 37.4	40.6 $\pm$ 7.1	47.5 $\pm$ 4.8
Fasted Total Cholesterol (mg/dl, n=14-20)	283 $\pm$ 13	107 $\pm$ 3	142 $\pm$ 4
Fasted Glucose (mg/dl, n=14-20)	141 $\pm$ 6	115 $\pm$ 3	116 $\pm$ 5
Fasted Insulin (ng/ml, n=14-20)	3.9 $\pm$ 0.5	0.9 $\pm$ 0.1	0.8 $\pm$ 0.1
Non-fasted Leptin (ng/ml, n=14-20)	**43.3 $\pm$ 8.0	5.2 $\pm$ 0.8	5.4 $\pm$ 0.9

<sup>\*</sup>3 of 20 mice had values greater than the detection limit and were set to 100 ng/ml.

<sup>\*\*</sup>3 of 15 mice had values greater than the detection limit and were set to 100 ng/ml.

<sup>t</sup>TD.120445 is a replacement for TD.08810 with 6% sucrose and majority of carbohydrate from resistant starch. Additional ingredient matched, low fat control diets are available.

<sup>tt</sup>Depending on what your main comparisons are, it may be suitable to have a grain-based diet as your control. 2018S is just one of many grain-based Teklad diets.

For additional study details, please refer to the [poster on our website](#)  
or contact a nutritionist at [askanutritionist@envigo.com](mailto:askanutritionist@envigo.com)