Table S1. Primers sequences for genes assessed by qRT-PCR.

Gene	Forward primer (5' to 3')	Reverse primer (5' to 3')
ucp1	CTGCCTCTCTCGGAAACAAG	TGCATTCTGACCTTCACGAC
col1a1	ACGCCATCAAGGTCTACTGC	GTTCGGGCTGATGTACCAGT
col3a1	ACCAAAAGGTGATGCTGGAC	TCCAGTTAGCCCTGCAATTC
col8a1	GGGATTTTGGAGGGTTCTTC	TAGTCCTGCAGCTCAAAGCA
srebp2	AGCTGGCAAATCAGAAAAACAAG	GATTAAAGTCTTCAATCTTCAAGTCCAC
cd36	GTATTCTCATGCCAGTTGGAGAC	TTTAACCCAGTTTTTGAAAGCAA
abcg1	AAGAAGGTGGACAACAACTTCAC	CCTTTCAAAAGGGTCTTGTATCC
abcg5	CCATTCTGACTTACGGAGAGTTG	CAGGGGTAACCACAGTTATTGAA
fas	GCAGTCTTGAGTAGCTTTGTGCT	GGGAGCTGTCCAGATTAATACCT
lpl	TACAGGTGCAACTCTAAGGAAGC	GTCTTCAGGTACATCTTGCTGCT
18s	CGAAAGCATTTGCCAAGAAT	AGTCGGCATCGTTTATGGTC

Primers for *ucp1*, *col1a1*, *col3a1*, *col8a1*, and *18s* were generated using Batch Primer 3 v1.0 (http://batchprimer3.bioinformatics.ucdavis.edu/cgi-bin/batchprimer3/batchprimer3.cgi). Primers for *srebp2*, *cd36*, *abcg1*, *abcg5*, *fas*, and *lpl*, were published elsewhere [1].

1.   Naples, M., C. Baker, M. Lino, J. Iqbal, M.M. Hussain and K. Adeli, 2012. Ezetimibe ameliorates intestinal chylomicron overproduction and improves glucose tolerance in a diet-induced hamster model of insulin resistance. Am J Physiol Gastrointest Liver Physiol 302(9): G1043-52. https://doi.org/10.1152/ajpgi.00250.2011.

Table S2. Fasting blood glucose, triglyceride, total cholesterol, HDL-c and LDL-c in Ddr1$^{+/+}$ and Dd1$^{-/-}$ mice fed HFD or control CF for 12 weeks.

Parameter	Ddr1$^{+/+}$ (n=9)	Ddr1$^{-/-}$ (n=9)	p-value	Sig
CF Body weight (g)	21.90±2.34	18.53±4.28	0.0316	*
HFD Body weight (g)	43.10±5.33	31.65±6.87	0.0008	***
CF Blood glucose (mg/dL)	137.90±25.96	121.70±43.34	0.3009	ns
HFD Blood glucose (mg/dL)	167.80±24.76	152.20±22.09	0.1772	ns
HFD Triglyceride (mg/dL)	214.80±23.31	189.90±26.43	0.4946	ns
HFD Total Cholesterol (mg/dL)	1694±106.2	1031±104.6	0.001	***
HFD HDL-c (mg/dL)	101.70±3.25	88.52±7.93	0.1149	ns
HFD LDL-c (mg/dL)	374.90±41.02	229.80±15.11	0.0127	*

CF, 12-week chow-fed; HFD, 12-week high-fat diet fed; HDL-c, high-density lipoprotein cholesterol; LDL-c, low-density lipoprotein cholesterol. Some of these data were previously published [1].

1.   Lino, M., M.H. Wan, A.S. Rocca, D. Ngai, N. Shobeiri, G. Hou, et al., 2018. Diabetic Vascular Calcification Mediated by the Collagen Receptor Discoidin Domain Receptor 1 via the Phosphoinositide 3-Kinase/Akt/Runt-Related Transcription Factor 2 Signaling Axis. Arterioscler Thromb Vasc Biol 38(8): 1878-1889. https://doi.org/10.1161/ATVBAHA.118.311238.
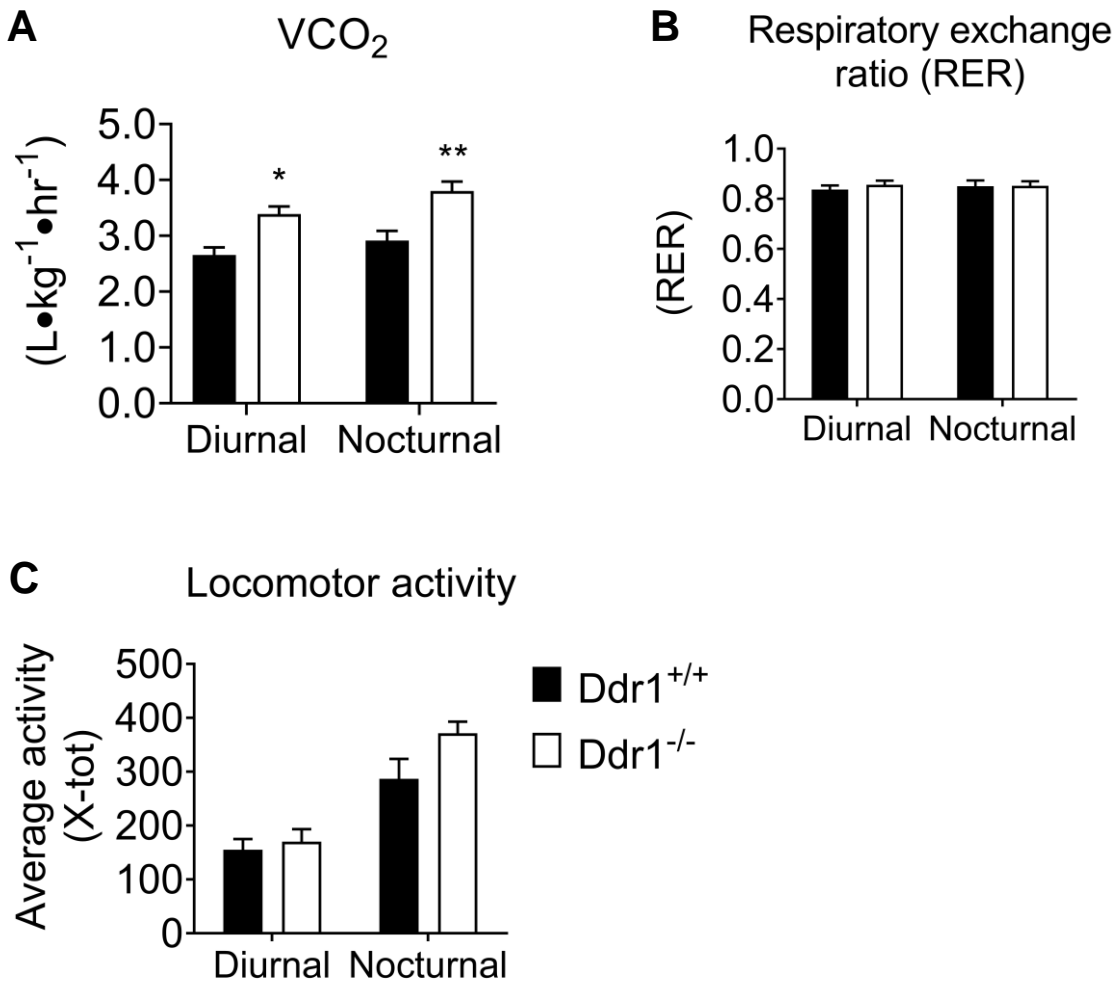
Figure S1. Ddr1$^{-/-}$ mice have increased VCO$_2$, no change in RER or locomotor activity. (**A-C**) VCO$_2$ (**A**), respiratory exchange ratio (RER) (**B**), and locomotor activity (**C**), were measured in Ddr1$^{+/+}$ and Ddr1$^{-/-}$ mice fed HFD for 6 weeks. Statistical analysis was performed by 2-way ANOVA with Bonferroni post-hoc test (**A-C**). *$p<0.05$, **$p<0.01$, compared to Ddr1$^{+/+}$.