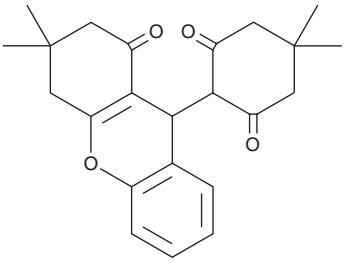
PRODUCT INFORMATION

L-152,804

Item No. 42504

CAS Registry No.:	6508-43-6
Formal Name:	5,5-dimethyl-2-(2,3,4,9-tetrahydro-3,3-dimethyl-1-oxo-1H-xanthen-9-yl)-1,3-cyclohexanedione
MF:	$C_{23}H_{26}O_4$
FW:	366.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

L-152,804 is supplied as a solid. A stock solution may be made by dissolving the L-152,804 in the solvent of choice, which should be purged with an inert gas. L-152,804 is slightly soluble (0.1-1 mg/ml) in DMSO and ethanol.

Description

L-152,804 is an antagonist of neuropeptide Y (NPY) receptor Y_5 (IC_{50}s = 26 and 31 nM for the human and rat receptors, respectively).[1] It is selective for Y_5 over Y_1, Y_2, and Y_4 receptors (IC_{50}s = >10,000 nM for the human receptors). L-152,804 (30 µg, i.c.v.) reduces bovine pancreatic peptide-induced, but not NPY-induced, food intake in satiated rats. It reduces body weight in diet-induced obese (DIO) mice to a greater extent than pair-fed DIO mice without reducing food intake when administered at a dose of 100 mg/kg.[2] It also reduces mesenteric adipose tissue weight in DIO mice when compared to pair-fed DIO or *ad libitum*-fed DIO mice and reduces hepatic triglyceride levels in DIO mice when compared to *ad libitum*-fed DIO mice. L-152,804 increases expression of the genes encoding mitochondrial uncoupling protein 1 (UCP1) and UCP3 in brown adipose tissue (BAT) and the β_3-adrenergic receptor in white adipose tissue (WAT) of DIO mice compared to pair-fed and *ad libitum*-fed DIO mice. It does not increase energy expenditure in DIO mice compared to lean mice.

References

1. Kanatani, A., Ishihara, A., Iwaasa, H., *et al.* L-152,804: Orally active and selective neuropeptide Y Y5 receptor antagonist. *Biochem. Biophys. Res. Commun.* **272(1),** 169-173 (2000).
2. Mashiko, S., Ishihara, A., Iwaasa, H., *et al.* A pair-feeding study reveals that a Y5 antagonist causes weight loss in diet-induced obese mice by modulating food intake and energy expenditure. *Mol. Pharmacol.* **71(2),** 602-608 (2007).

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