Data in Brief ∎ (∎∎∎∎) ∎∎∎–∎∎∎

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Data Article

Q1 Data on *in vivo* antioxidant, hypolipidemic and Q2 hepatoprotective potential of *Thaumatococcus daniellii* (Benn.) Benth leaves

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ABSTRACT

This data article reports on the *in vivo* biochemical activity of ethanolic extract of *Thaumatococcus daniellii* (Benn.) Benth leaves (ETD) in male Wistar rats at an oral dose of 500–1500 mg/kg daily for 14 days. Control groups were administered distilled water and Vitamin C (10 mg/kg; b.wt). Indices of oxidative stress, dyslipidemia, liver injury and liver pathology were estimated in the plasma and organs after the investigation period. Oral treatment with ETD increased organ superoxide dismutase (SOD) activity, renal reduced glutathione (GSH) and plasma high density lipoprotein (HDL) concentrations while reducing plasma alanine transaminase (ALT) activity, plasma cholesterol (CHOL), bilirubin (DBIL) and organ malondialdehyde (MDA) concentrations ($P < 0.05$). Data was supported by histological report showing no pathologic abnormality. This data indicate ethanolic extract of *T. daniellii* leaves shows antioxidant, hypolipidemic and hepatoprotective potential.

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Specifications Table

Subject area	*Biochemistry*
More specific subject area	*Pharmacology, Medicinal and Food Plants*
Type of data	*Table, Text File, Graph, Figure*
How data was acquired	*All data were acquired using a spectrophotometer (Thermo Fisher Scientific, GEN10S, Madison, USA) and weighing balance (Ohaus Corp., PA4202C, New Jersey, USA)*
Data format	*Raw, analyzed and expressed as mean ± S.D. from five animals.*
Experimental factors	*Ethanolic extract of T. daniellii leaves was prepared and concentrated using a rotary evaporator*
Experimental features	*Lipid profile, antioxidant and liver function parameters in plasma, liver and kidney were examined*
Data source location	*Department of Biochemistry, Covenant University, Ota, Nigeria.*
Data accessibility	*Data is supplied in this article*
Related research article	*S.N. Chinedu, F.N. Iheagwam, C.J. Anichebem, G.B. Ogunnaike, O.C. Emiloju, Antioxidant and biochemical evaluation of Thaumatococcus daniellii seeds in rat, J. Biol. Sci. 17(8) (2017) 381–387.*

Value of the data

- The presented data indicate *T. daniellii leaf* possess antioxidant and hypolipidemic properties comparable with vitamin C.
- Data shows *T. daniellii leaf* may not be toxic or injurious to the organs at the tested doses and time frame.
- The data in this article may prove that *T. daniellii leaf* is a natural source of bioactivities with healthy benefits.
- The data is important in promoting an alternative use of *T. daniellii* leaf which is usually discarded as waste.

1. Data

The data describes the effect of ethanolic extract of *Thaumatococcus daniellii* leaves (ETD) on oxidative stress parameters, lipid profile, liver function and pathology. Data on the effect of ETD treatment on weight gain, organ weight, superoxide dismutase (SOD) activity, reduced glutathione (GSH) and malondialdehyde (MDA) concentrations are presented in Figs. 1–4 respectively. Plasma and organ lipid profile and liver function parameters are shown in Tables 1 and 2 respectively. Histological data on changes in rat liver is depicted in Fig. 5.

2. Experimental design, materials and methods

2.1. Collection of plant samples and extracts preparations

Mature *T. daniellii* leaves were bought from Oja-Ota, Ogun State, Nigeria and identified by Dr J.O. Popoola from Covenant University, Ota, Nigeria. Leaf extract was prepared as reported by Chinedu et al. [1] and Iheagwam et al. [2].

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