

Henderson et al. 90-Day oral toxicity study

CBD-isolat tested in rats
Report generated: 2024-Jun-12 10:06 UTC
BMDS version: 3.3.0 (2023.03.1)
BMDS online version: d5f505c8 (2023-03-14)

Session Results

Input Dataset

Dose (mg/kg bw/day)	N	Mean (g)	Std. Dev. (g)
0	10	8.52	0.84
50	10	8.71	1.13
80	10	10.64	1.22
120	10	12.13	1.16
140	10	12.98	2.05

Input Settings

Setting	Value
BMR	1.0 Standard Deviation
Distribution	Normal + Constant variance
Modeling Direction	Up (↑)
Maximum Polynomial Degree	1
Confidence Level	0.95
Tail Probability	0.01

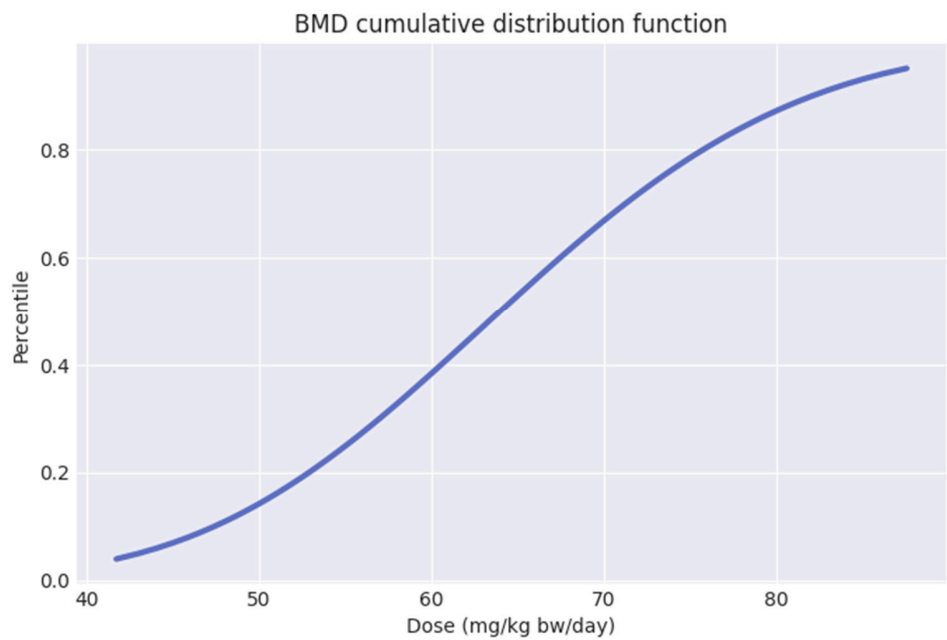
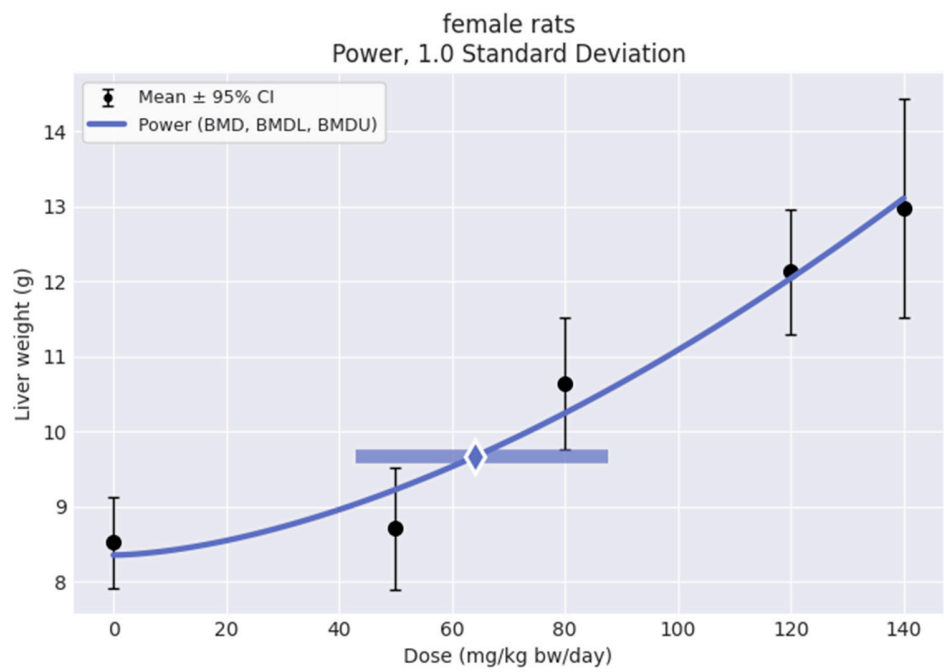
Frequentist Summary

Model	BMDL	BMD	BMDU	P-Value	AIC	Scaled Residual for Dose Group near BMD	Scaled Residual for Control Dose Group	Recommendation and Notes
ExponentialM3	41.505	63.441	88.011	0.2	177.336	-1.341	0.407	Viable Control stdev. fit greater than 1.5
ExponentialM5	48.594	66.644	84.997	0.239	177.504	0.615	0.317	Viable Control stdev. fit greater than 1.5
Hill	50.351	67.497	83.624	0.338	177.04	0.368	0.231	Viable Control stdev. fit greater than 1.5
Power ^a	42.994	63.971	87.538	0.242	176.957	-1.248	0.402	Recommended - Lowest AIC Control stdev. fit greater than 1.5
Linear	32.037	40.087	53.247	0.061	179.503	-2.139	1.367	Questionable Goodness of fit p-value less than 0.1 Control stdev. fit greater than 1.5 Abs(Residual of interest) greater than 2.0

^a Recommended best-fitting model

Selected Model

Power



Power

Input Summary:

BMR	1.0 Standard Deviation
Distribution	Normal + Constant variance
Modeling Direction	Up (↑)
Confidence Level	0.95
Tail Probability	0.01
Modeling Approach	Frequentist restricted

Parameter Settings:

Parameter	Initial	Min	Max
g	0	-100	100
v	0	-100	100
n	0	1	18
alpha	0	-18	18

Summary:

BMD	63.9705
BMDL	42.9939
BMDU	87.5384
AIC	176.957
Log Likelihood	84.4786
P-Value	0.242127
Model DOF	2

Model Parameters:

Variable	Estimate	Bounded	Std Error	Lower CI	Upper CI
g	8.35348	no	0.382399	7.60399	9.10297
v	0.00140047	no	0.00015036	0.00110577	0.00169517
n	1.64523	no	0.382041	0.896449	2.39402
alpha	1.71818	no	0.590439	0.560942	2.87542

Goodness of Fit:

Dose	Size	Observed Mean	Calculated Mean	Estimated Mean	Scaled Residual
0	10	8.52	8.52	8.35348	0.40172
50	10	8.71	8.71	9.22742	-1.24826
80	10	10.64	10.64	10.2471	0.947747
120	10	12.13	12.13	12.0434	0.208956
140	10	12.98	12.98	13.1086	-0.310163

Dose	Size	Observed SD	Calculated SD	Estimated SD
0	10	0.84	0.84	1.31079
50	10	1.13	1.13	1.31079
80	10	1.22	1.22	1.31079
120	10	1.16	1.16	1.31079
140	10	2.05	2.05	1.31079

Likelihoods of Interest:

Model	Log Likelihood	# Params	AIC
A1	-83.0603	6	178.121
A2	-78.4427	10	176.885
A3	-83.0603	6	178.121
fitted	-84.4786	4	176.957
reduced	-110.186	2	224.371

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Tests of Interest:

Name	Loglikelihood Ratio	Test DOF	P-Value
Test 1	63.486	8	9.60795e-11
Test 2	9.23528	4	0.0554803
Test 3	9.23528	4	0.0554803
Test 4	2.83659	2	0.242127