

# Linear Mixed Model Analysis Report

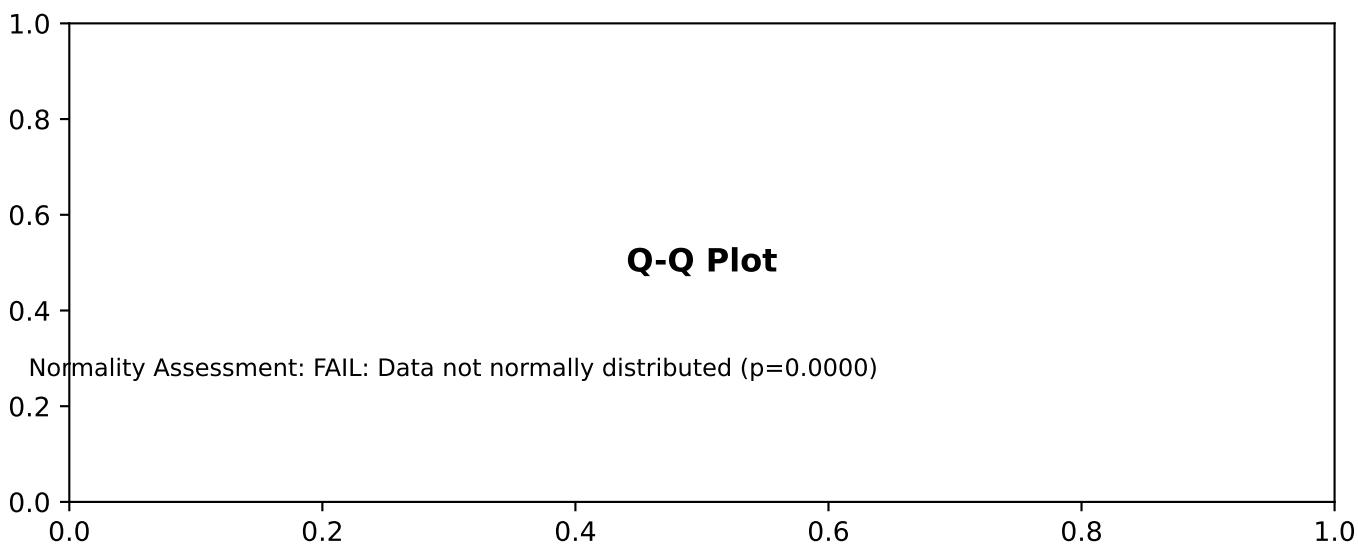
Data File: CMF\_Catalogue\_data\_T1D(1).xlsx

Generated: 2026-01-29 17:48:00

Total Analyses: 4

# **Analysis 1: marker1\_sum**

Animal ID: ID  
Independent Variables: dose, substance, sex  
Dependent Variable: marker1\_sum



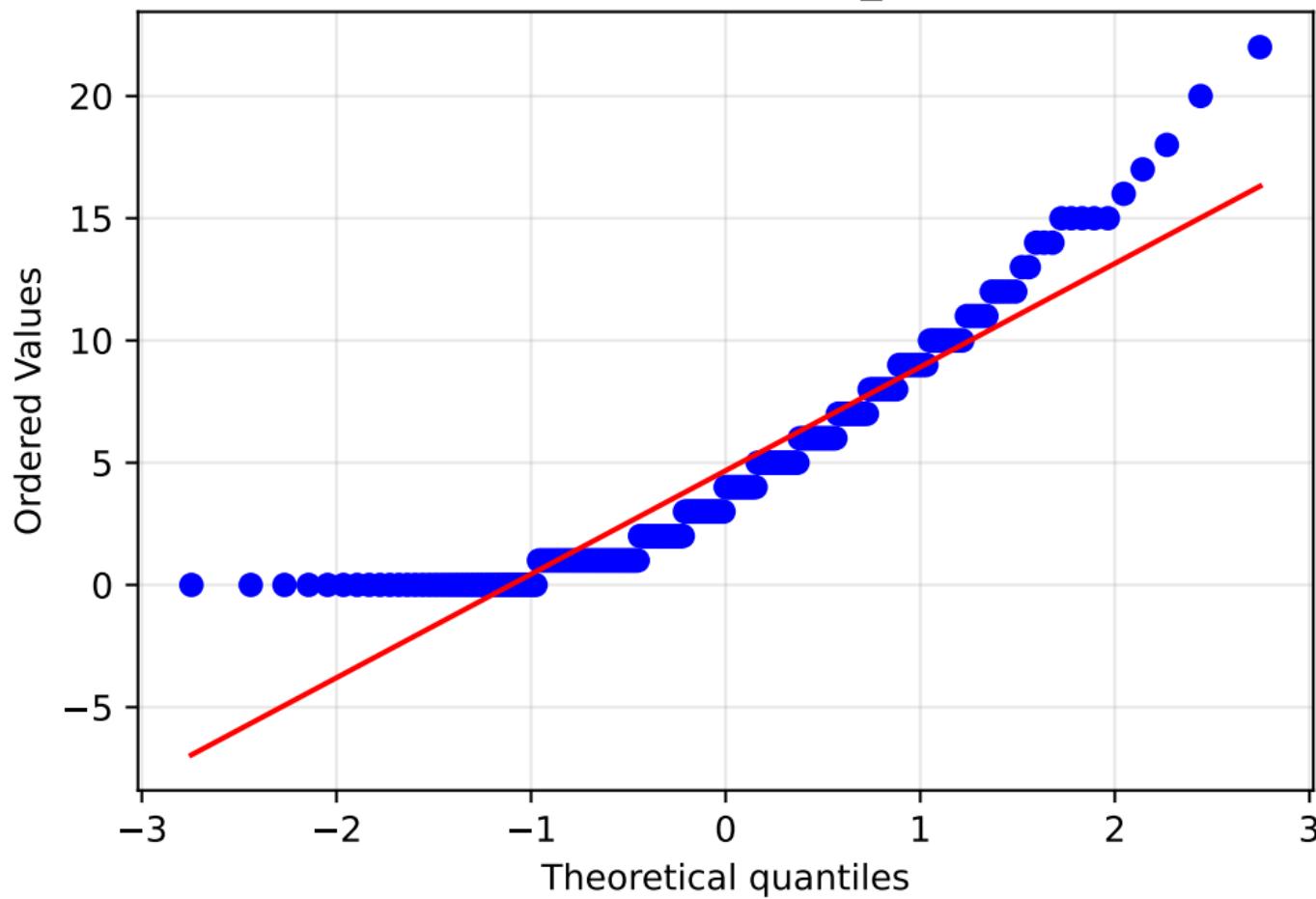
## **Statistical Results:**

### Mixed Linear Model Regression Results

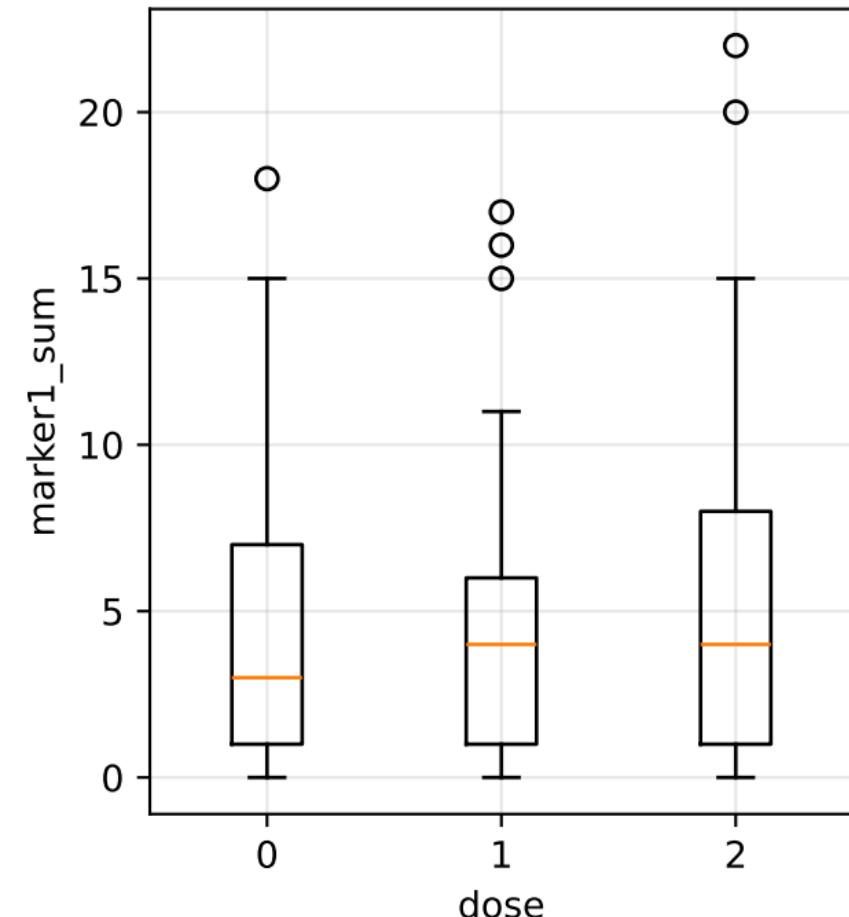
===== Model: MixedLM Dependent Variable: marker1_sum ===== No. Observations: 229 Method: REML No. Groups: 50 Scale: 20.0732 Min. group size: 1 Log-Likelihood: -665.9589 Max. group size: 7 Converged: Yes Mean group size: 4.6						
	Coef.	Std.Err.	z	P> z	[0.025	0.975]
Intercept	4.237	0.516	8.210	0.000	3.225	5.248
substance[T.B]	-0.100	0.609	-0.165	0.869	-1.294	1.093
sex[T.M]	0.721	0.613	1.176	0.240	-0.481	1.923
dose	0.165	0.364	0.453	0.651	-0.548	0.878
Group Var	0.000	0.262				

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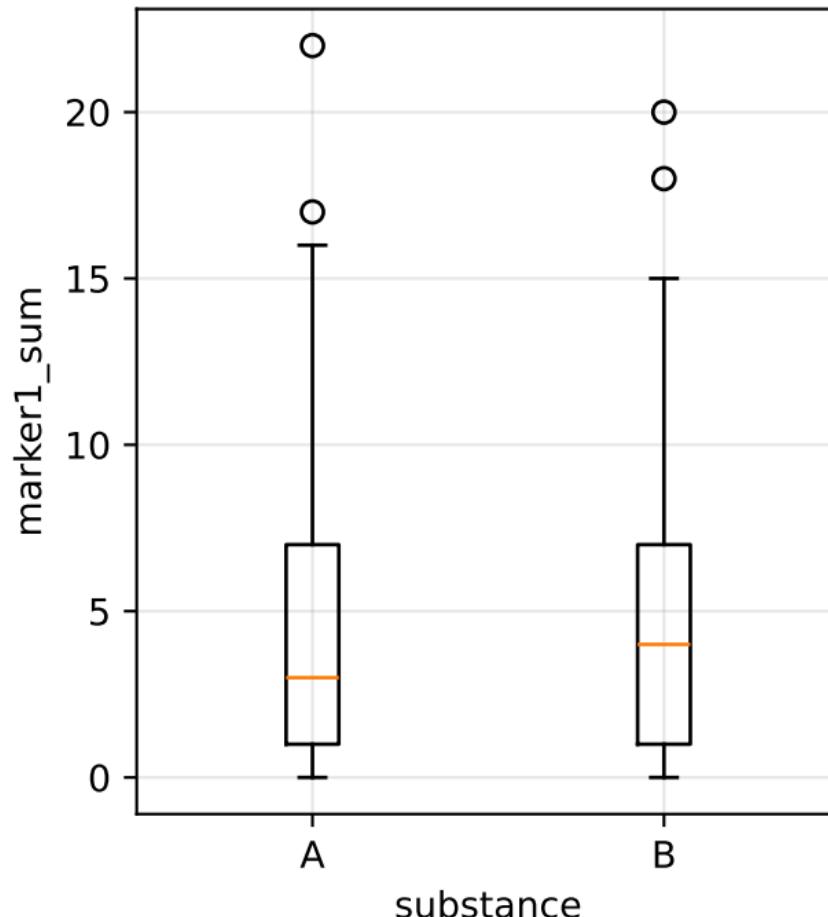
# Q-Q Plot: marker1\_sum



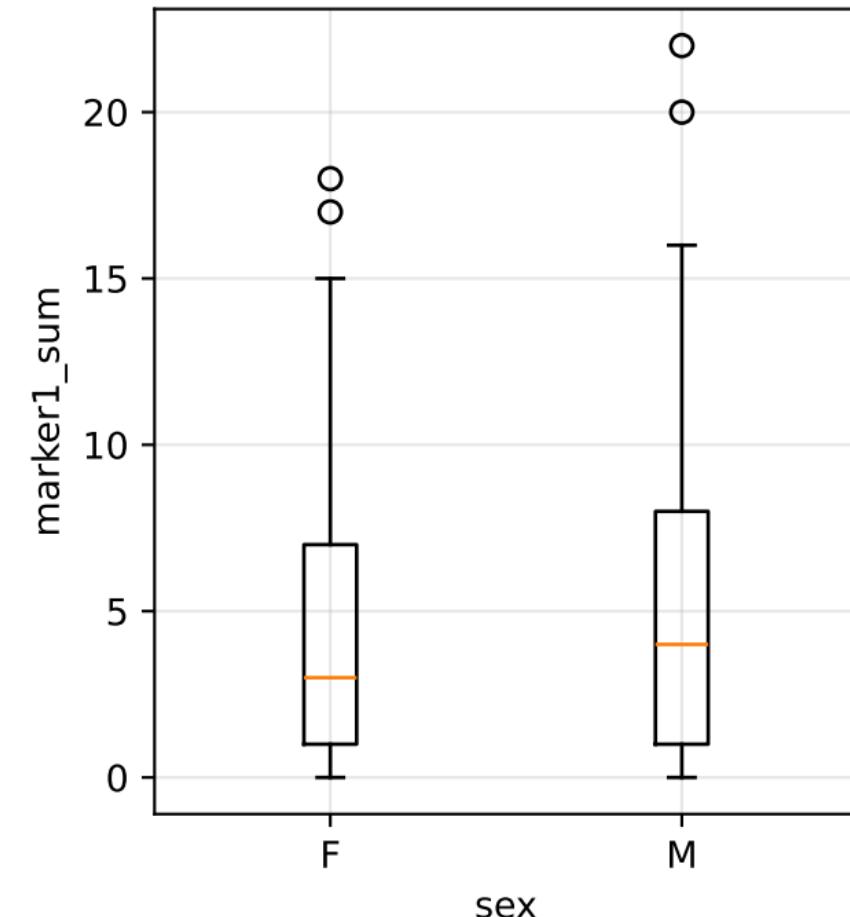
marker1\_sum by dose



marker1\_sum by substance



marker1\_sum by sex

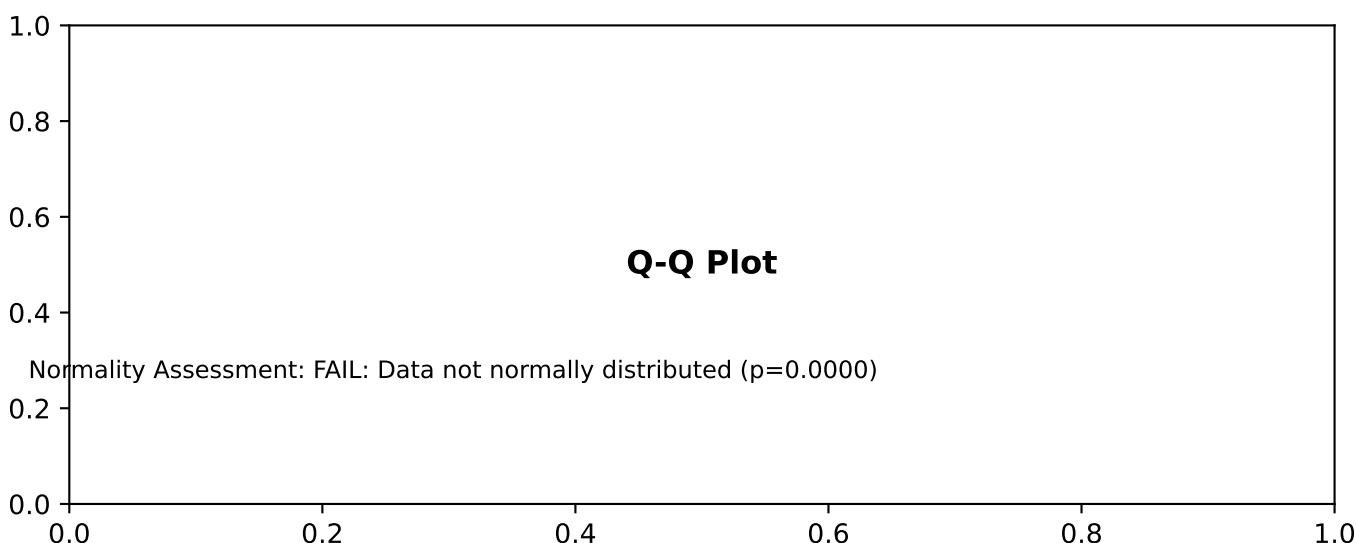


## Analysis 2: marker1\_avg\_time

Animal ID: ID

Independent Variables: dose, substance, sex

Dependent Variable: marker1\_avg\_time



### Statistical Results:

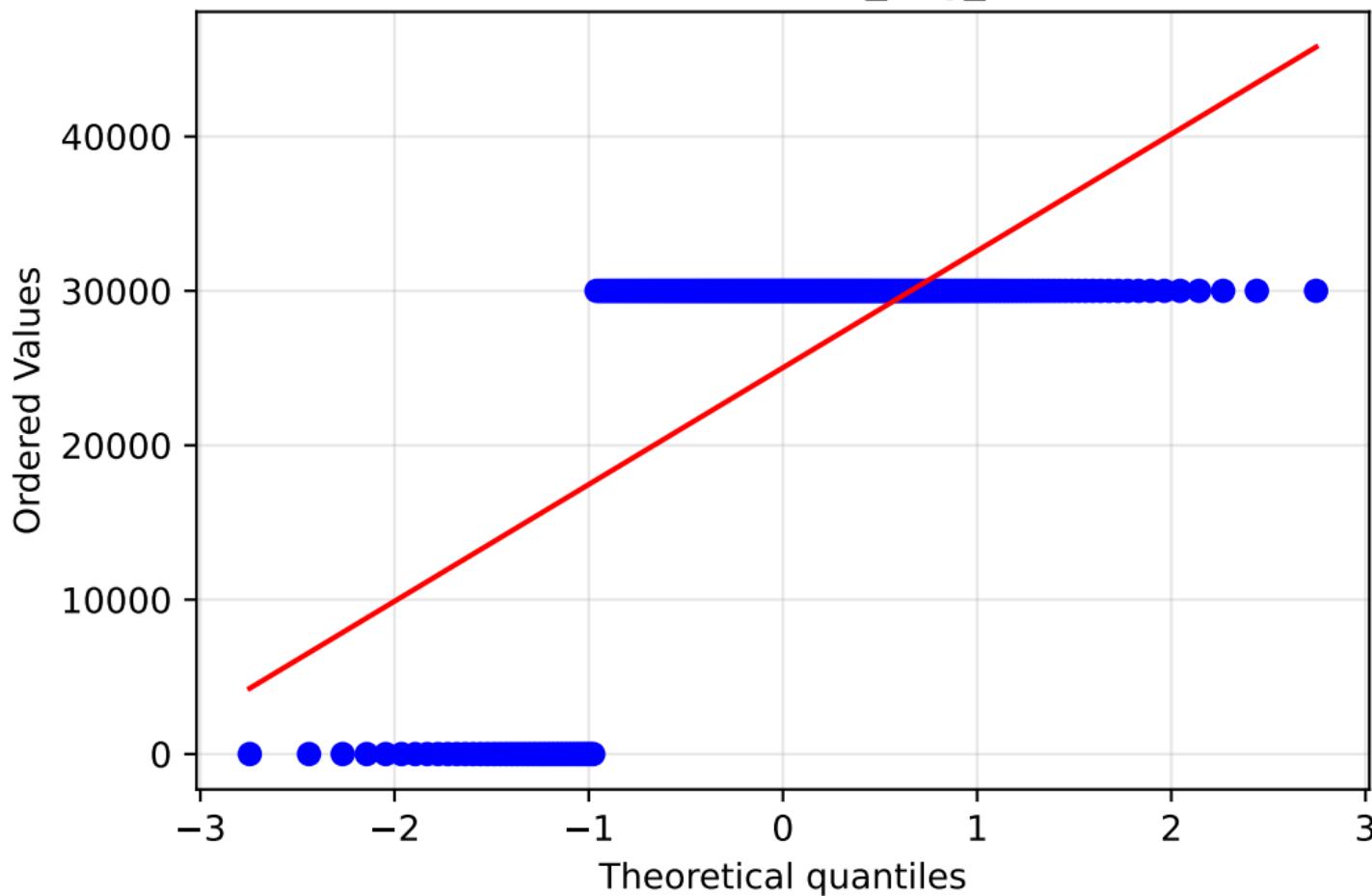
#### Mixed Linear Model Regression Results

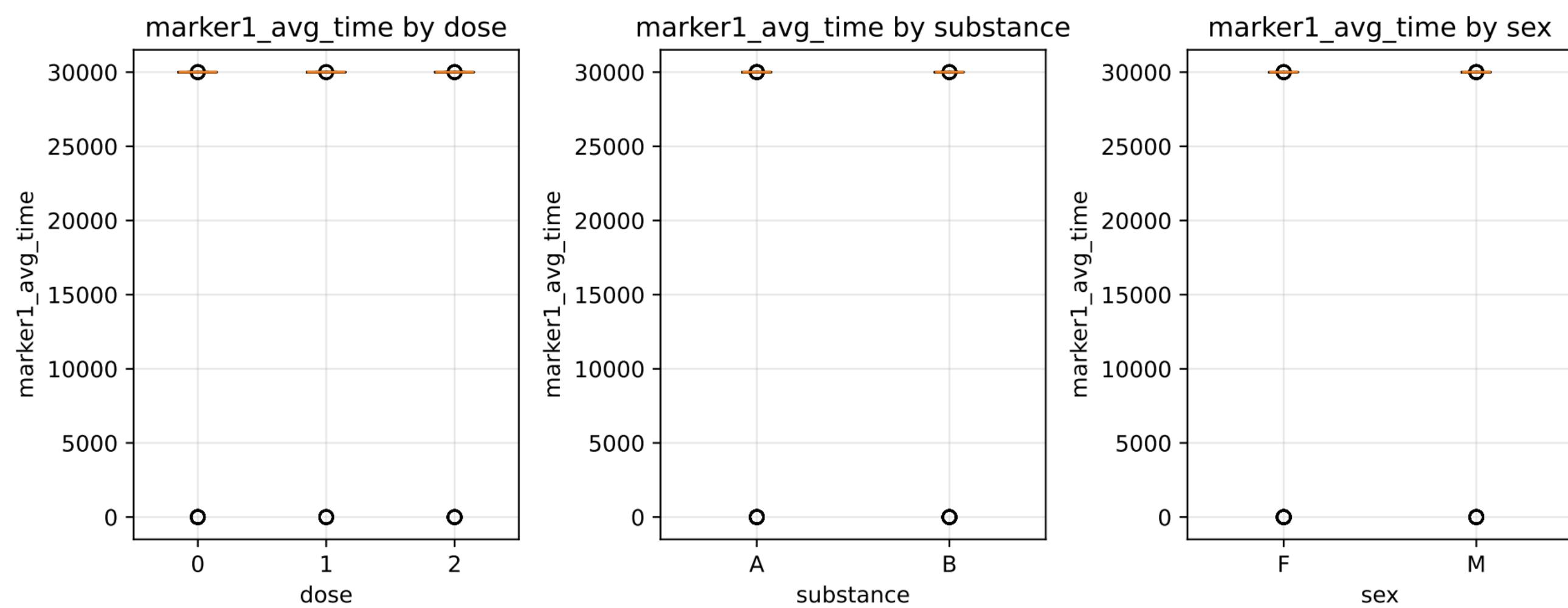
Model:	MixedLM	Dependent Variable:	marker1_avg_time
No. Observations:	229	Method:	REML
No. Groups:	50	Scale:	126435853.9818
Min. group size:	1	Log-Likelihood:	-2427.2432
Max. group size:	7	Converged:	Yes
Mean group size:	4.6		

	Coef.	Std.Err.	z	P> z	[0.025	0.975]
Intercept	24247.276	1294.518	18.731	0.000	21710.067	26784.485
substance[T.B]	62.110	1526.256	0.041	0.968	-2929.297	3053.516
sex[T.M]	832.913	1540.033	0.541	0.589	-2185.497	3851.322
dose	413.165	918.342	0.450	0.653	-1386.751	2213.081
Group Var						

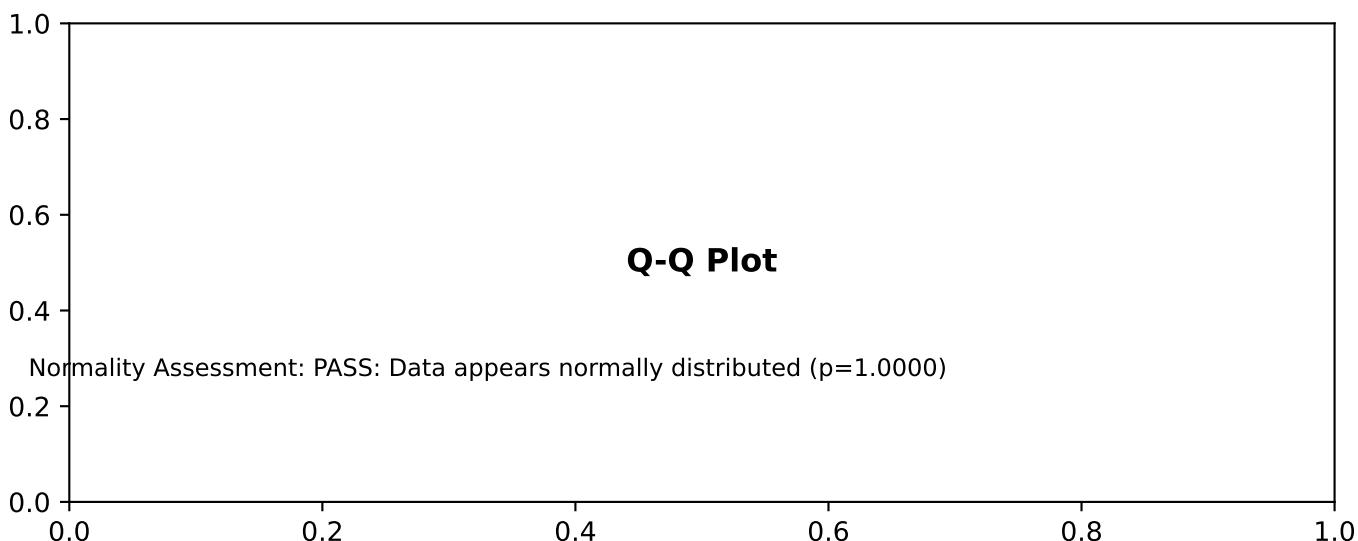
### Q-Q Plot: marker1\_avg\_time





# **Analysis 3: marker3\_sum**

Animal ID: ID  
Independent Variables: dose, substance, sex  
Dependent Variable: marker3\_sum

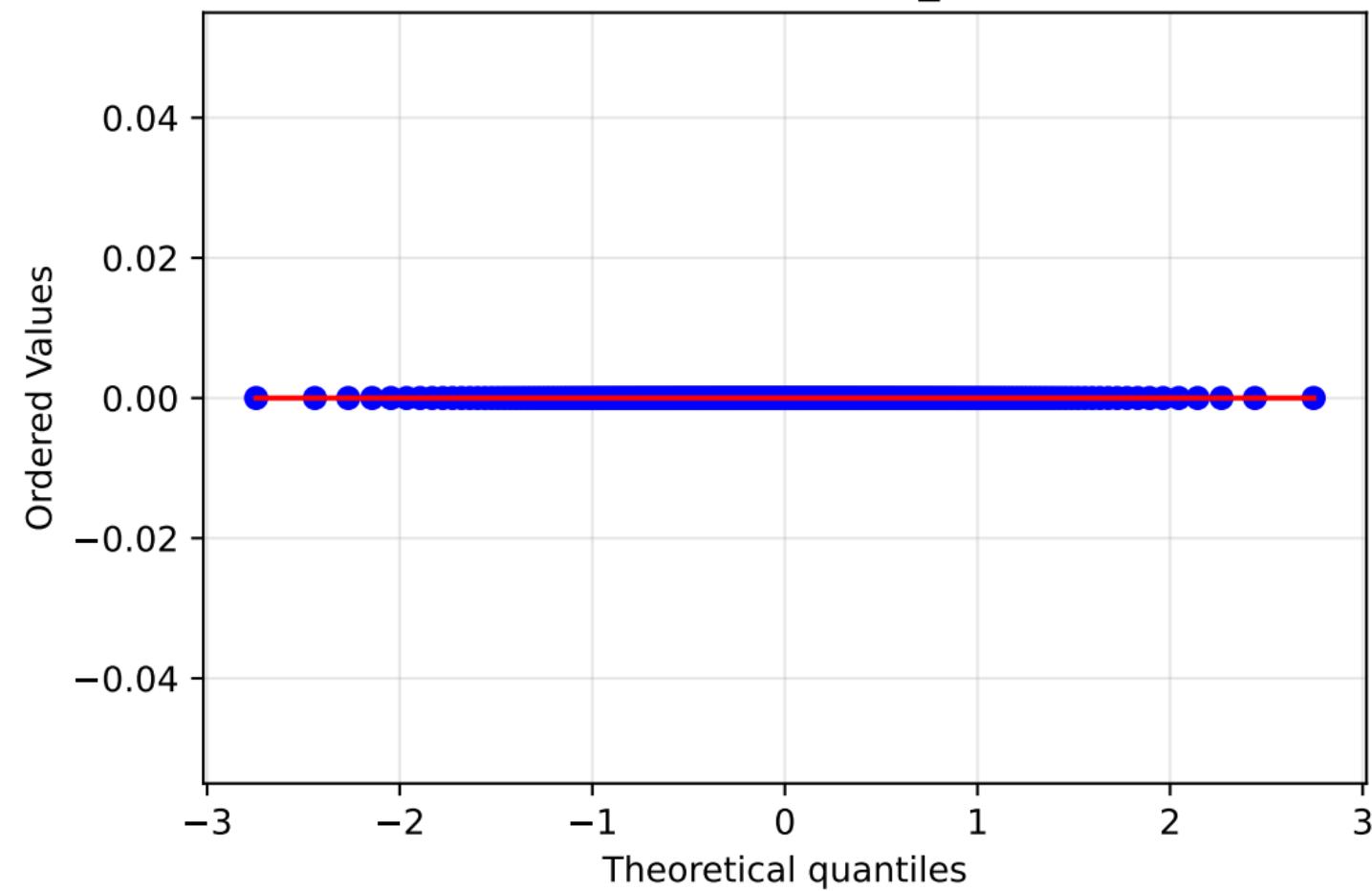


## **Statistical Results:**

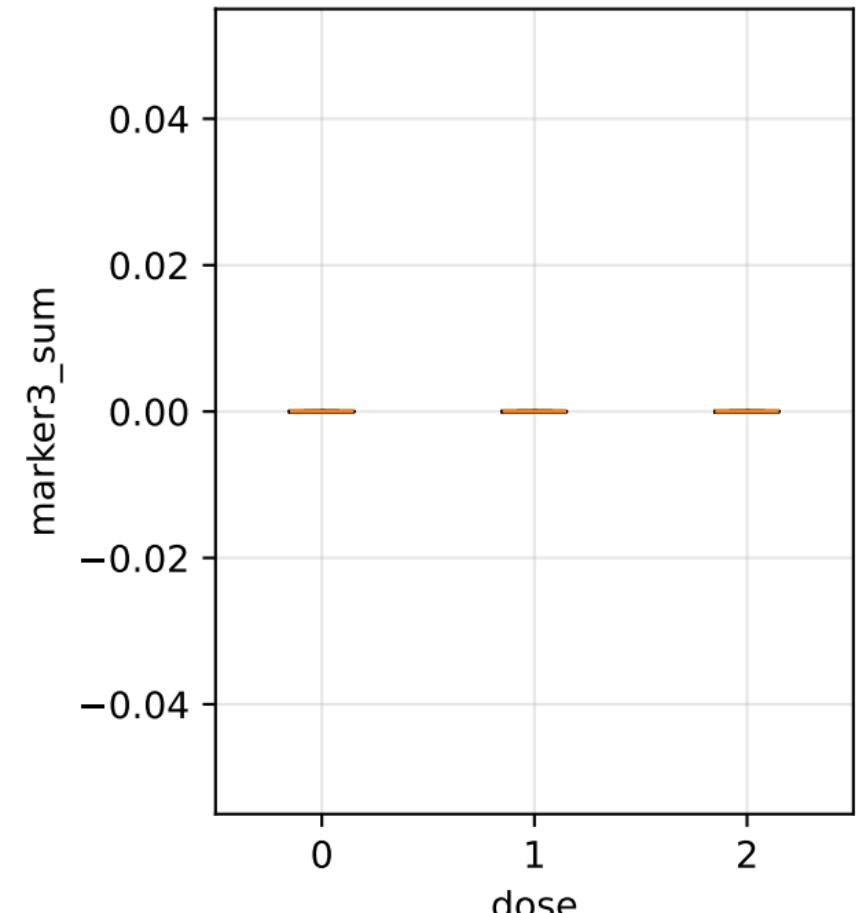
Mixed Linear Model Regression Results

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=====
Model:           MixedLM Dependent Variable: marker3_sum
No. Observations: 229      Method:          REML
No. Groups:       50       Scale:            0.0000
Min. group size:  1       Log-Likelihood:    inf
Max. group size:  7       Converged:        No
Mean group size: 4.6
-----
          Coef.  Std.Err.   z  P>|z|  [0.025  0.975]
-----
Intercept      0.000
substance[T.B] 0.000
sex[T.M]        0.000
dose            0.000
Group Var      0.000
=====
```

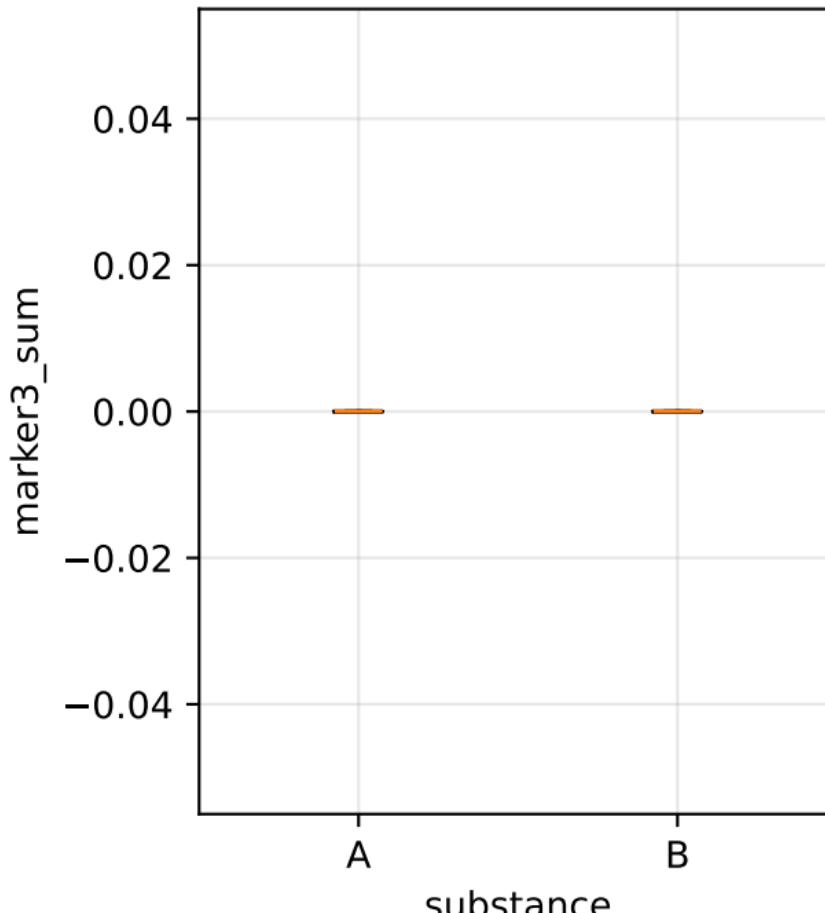
### Q-Q Plot: marker3\_sum



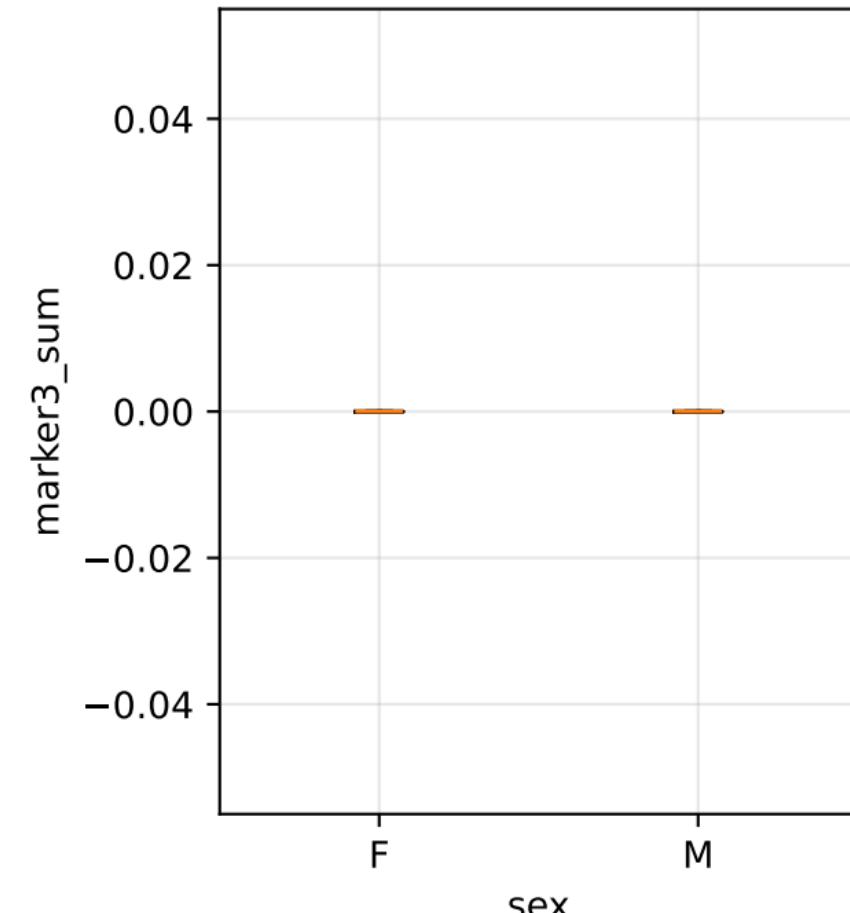
marker3\_sum by dose



marker3\_sum by substance

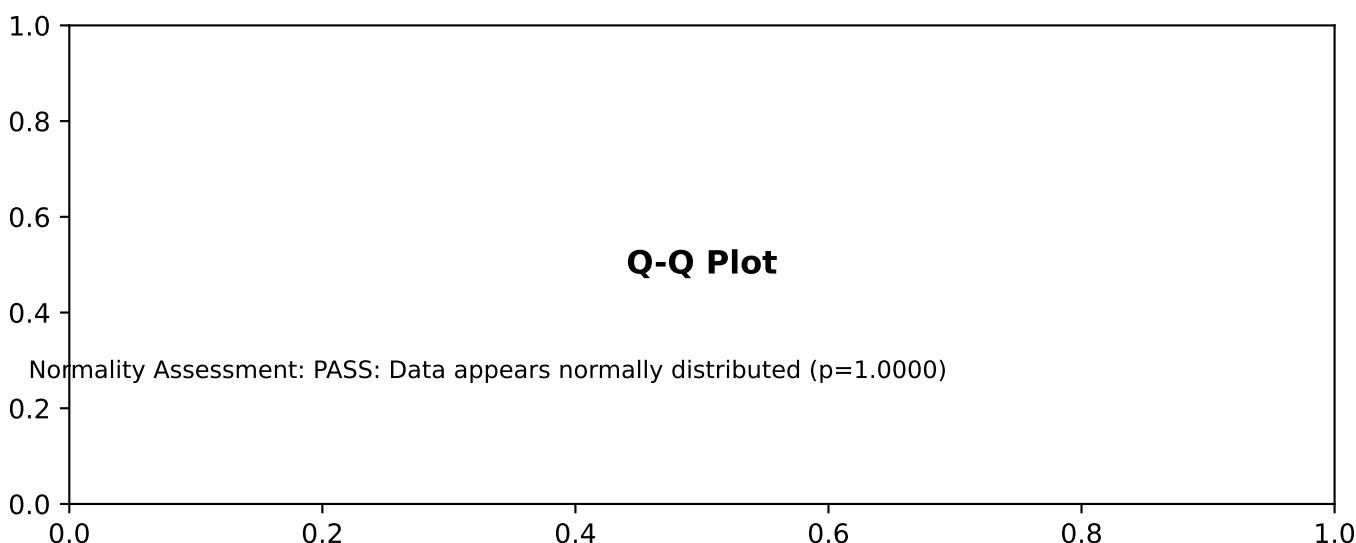


marker3\_sum by sex



# Analysis 4: marker3\_avg\_time

Animal ID: ID  
Independent Variables: dose, substance, sex  
Dependent Variable: marker3\_avg\_time



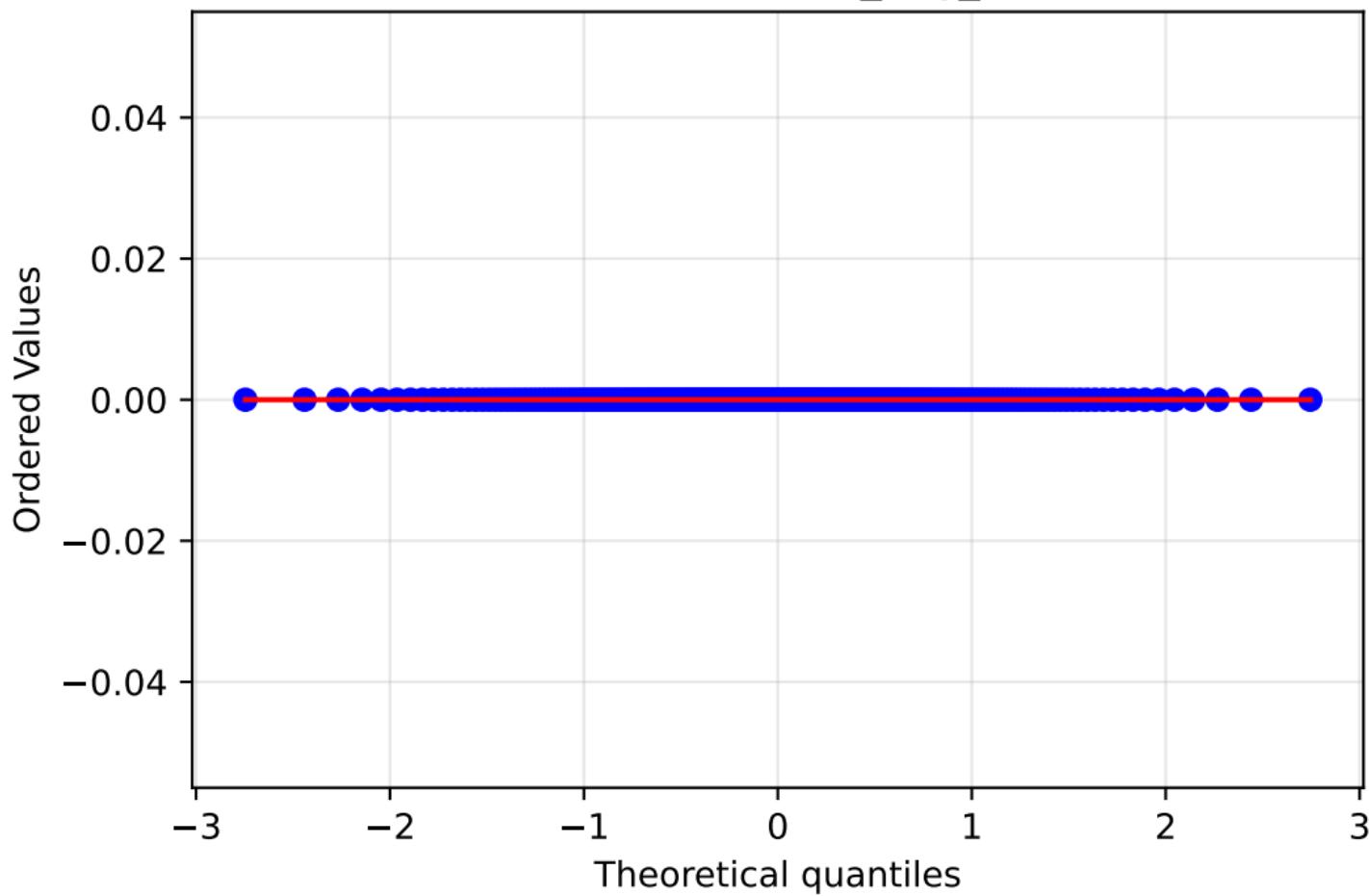
## Statistical Results:

### Mixed Linear Model Regression Results

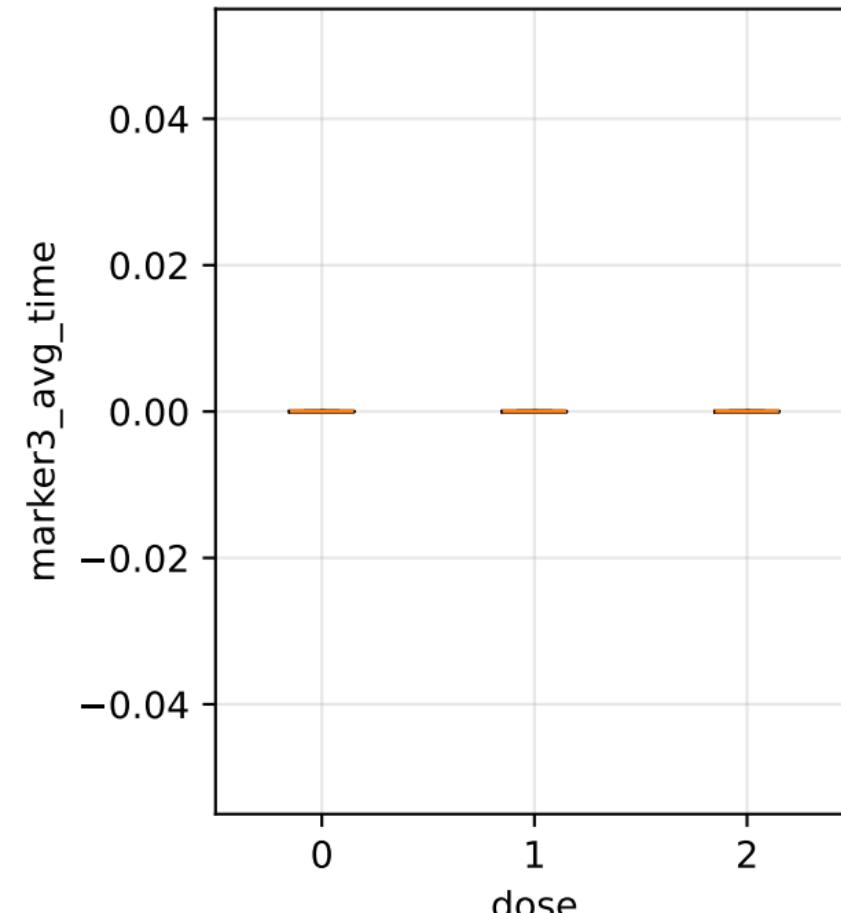
```
=====
Model:           MixedLM Dependent Variable: marker3_avg_time
No. Observations: 229      Method:             REML
No. Groups:       50       Scale:              0.0000
Min. group size: 1        Log-Likelihood:     inf
Max. group size: 7        Converged:          No
Mean group size: 4.6
```

	Coef.	Std.Err.	z	P> z	[0.025	0.975]
Intercept	0.000					
substance[T.B]	0.000					
sex[T.M]	0.000					
dose	0.000					
Group Var	0.000					

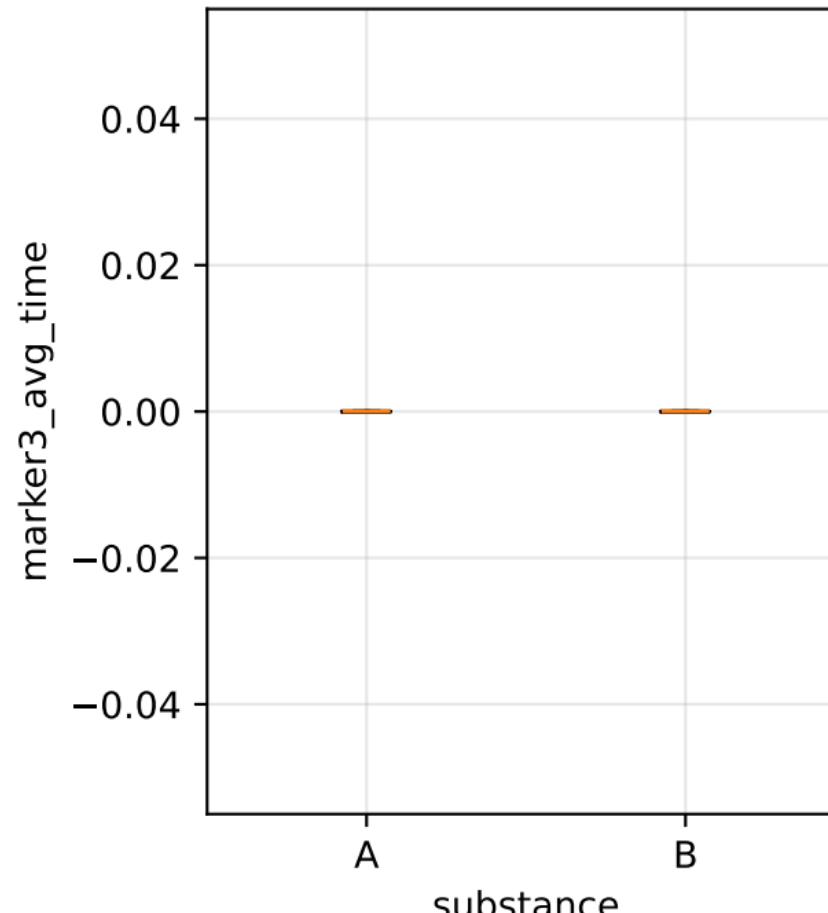
### Q-Q Plot: marker3\_avg\_time



marker3\_avg\_time by dose



marker3\_avg\_time by substance



marker3\_avg\_time by sex

