Experiment Number: K55301B
Route: IV, Gavage
Species/Strain: Mouse/B6C3F1

Toxicokinetics Data Summary
Compound: Pyridine / **Analyte:** Pyridine
CAS Number: 110-86-1

Request Date: 7/11/2023
Request Time: 10:03:16
Lab: T.S.I Mason

Male

Treatment Group (mg/kg)

	10 IV Plasma [a]	10 Gavage Plasma[b]	50 Gavage Plasma[c]	200 Gavage Plasma[d]
Cmax_obs (ug/mL)	5.3	4.7	4.8	5.7
Tmax_obs (minute)	2	10	10	40
Half-life (hour)	33	30	149	1433
AUC_0-T (min*ug/mL)	377 ± 63	295 ± 39	7203 ± 416	39493 ± 3148
F		0.78 ± 0.19		

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Female

	Treatment Group (mg/kg)			
	10 IV Plasma[e]	**10 Gavage Plasma[f]**	**50 Gavage Plasma[d]**	**200 Gavage Plasma[d]**
Cmax_obs (ug/mL)	35.6	39.4	101.7	108.8
Tmax_obs (minute)	2	10	10	40
Half-life (hour)	22	57	349	2134
AUC_0-T (min*ug/mL)	521 ± 78	613 ± 53	8724 ± 460	47483 ± 2126
F	1.18 ± 0.20			

LEGEND

EXCEPTIONS

[a] AUC based on truncated curves. Final half time for elimination omitted 4 hour time point.

[b] The 4 hour time point was removed from this calculation. AUC based on truncated curves. Final half time for elimination penultimate slope.

[c] AUC based on truncated curves The 4-hour time point was removed from this AUC calculation. Half-life estimates penultimate slope.

[d] Bioavailability is not applicable. AUC based on truncated curves.

[e] Bioavailability is not applicable. AUC based on truncated curves Final half time for elimination penultimate slope..

[f] AUC based on truncated curves.

ANALYTE

Pyridine

TK PARAMETERS

Cmax_obs = Observed or Predicted Maximum plasma (or tissue) concentration
Tmax_obs = Time at which Cmax predicted or observed occurs
Half-life = Lambda z Half life, t 1/2, the terminal elimination half-life based on non-compartmental analysis
AUC_0-T = Area under the plasma concentration versus time curve, AUC, from time ti (initial) to tf (final), AUClast
F = Bioavailability, absolute bioavailability

TK PARAMETERS PROTOCOL

ANALYSIS METHOD

Pyridine was analyzed using gas chromatography with nitrogen-phosphorus detection after extraction from plasma. Pyridine quantitation range in plasma samples was from 0.062 to 100 ug/ml.

TK_IV PLASMA

10 mg/kg Male and Female

Each group was administered a single bolus dose of pyridine. Blood samples for IV group were collected at 2,5,10,20, and 50 minutes, and 2,4, and 6 hours post-treatment.

TK_GAVAGE PLASMA

10 mg/kg, 50 mg/kg Male and Female

Each group was administered a single bolus dose of pyridine. Blood samples for 10 mg/kg and 50 mg/kg gavage groups were collected at 2, 10, 20, and 40 minutes, and 1, 2, 4, and 6 hours post-treatment

200 mg/kg Male and Female

Each group was administered a single bolus dose of pyridine. Blood samples for the 200 mg/kg gavage groups samples were collected at 2, 10, 20, and 40 minutes, and 1, 2, 5, and 8 hours post-treatment.