

Experiment Number: S0548
Route: Gavage, IV
Species/Strain: Mouse/B6C3F1

Toxicokinetics Data Summary
Test Compound: Sodium Nitrite
CAS Number: 7632-00-0

Date Report Requested: 12/02/2016
Time Report Requested: 11:51:32
Lab: Midwest Research Institute

Male

Treatment Groups (mg/kg)

	62.5^{a, #}	62.5^{b, *}	125^{a, #}	125^{b, *}	20 IV^{a, #}	20 IV^{b, *}
	Plasma					
C_{max}	14.9 percent	34 ug/mL	35.1 percent	54 ug/mL	4.2 percent	20 ug/mL
T_{max} (minute)	15.0	6.1	15.0	11.0	5.0	
$t_{1/2}$ (minute)	23		25		18	
$t_{1/2(k01)}$ (minute)		1.5		2.5		
$t_{1/2(k10)}$ (minute)		21		39		14
V_1 (mL)		28		51		19
MRT (minute)	38		55		29	
AUC _{0-t} (percent min)	665		2720		151	
AUC _{inf} (ug*min/mL)		1240		3640		418
F (percent)		95		140		

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	Female					
	Treatment Groups (mg/kg)					
	62.5 a, #	62.5 b, *	125 a, #	125 b, *	20 IV a, #	20 IV b, *
	Plasma					
$C_{\max(\text{pred})}$	11.2 percent	23 ug/mL	38.6 percent	52 ug/mL	4.8 percent	18 ug/mL
$T_{\max(\text{pred})}$ (minute)	15.0	7.2	60.0	14.0	2.0	
$t_{1/2}$ (minute)	18		14		15	
$t_{1/2(k01)}$ (minute)		1.7		3.3		
$t_{1/2(k10)}$ (minute)		26		50		15
V_1 (mL)		29		53		16
MRT (minute)	37		60		26	
AUC_{0-t} (percent min)	669		3620		141	
AUC_{inf} (ug*min/mL)		1040		4540		394
F (percent)		85		180		

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LEGEND

Data are displayed as a mean value

MODELING METHOD & BEST FIT MODEL

^a PCNONLIN Statistical Consultants, Inc., Lexington, KY; Non compartmental (NCA) model

^b PCNONLIN Statistical Consultants, Inc., Lexington, KY; One compartment model

ANALYTE

Methemoglobin

* Nitrite

TK PARAMETERS

$C_{\max(\text{pred})}$ = Observed or Predicted Maximum plasma (or tissue) concentration

$T_{\max(\text{pred})}$ = Time at which C_{\max} predicted or observed occurs

$t_{1/2}$ = λ_z half-life, $t_{1/2}$, the terminal elimination half-life based on non-compartmental analysis

$t_{1/2(k01)}$ = Half-life of the absorption process to the central compartment

$t_{1/2(k10)}$ = Half-life for the elimination process from the central compartment

V_1 = Volume of distribution of the central compartment, includes V_d and V_{volume} of distribution, V_z apparent volume of distribution NCA, V_{app} apparent volume of distribution for intravenous studies

MRT = Mean residence time

AUC_{0-t} = Area under the plasma concentration versus time curve, AUC, from time t_i (initial) to t_f (final), AUC_{last}

AUC_{inf} = Area under the plasma concentration versus time curve, AUC, extrapolated to time equals infinity

F = Bioavailability, absolute bioavailability

**** END OF REPORT ****