Experiment Number: K08002C | **Toxicokinetics Data Summary** | **Request Date:** 7/28/2020

Route: Gavage, Intravenous | **Compound/Analyte:** Bisphenol AF/Free Bisphenol AF | **Request Time:** 2:30:16

Species/Strain: Rats/Harlan Sprague Dawley | **CAS Number:** 1478-61-1 | **Lab:** TI

Male

	Treatment Group (mg/kg)			
	34 Gav[a] Plasma	**110 Gav[a] Plasma**	**340 Gav[a] Plasma**	**34 IV[b] Plasma**
Cmax_pred (ng/mL)	60.7 ± 8.39	142 ± 31.6	552 ± 138	75900 ± 13700
Tmax_pred (hour)	0.812 ± 0.352	1.43 ± 0.339	2.2 ± 0.718	
Alpha (1/hour)	1.41 ± 822	0.755 ± 103	0.485 ± 128	1.73 ± 0.169
Alpha_Half-life (hour)	0.491 ± 285	0.918 ± 125	1.43 ± 379	0.4 ± 0.039
Beta (1/hour)	0.0681 ± 0.0517	0.0378 ± 0.0756	0.0499 ± 0.0982	0.0865 ± 0.0138
Beta_Half-life (hour)	10.2 ± 4.5	18.4 ± 35.5	13.9 ± 28.1	8.01 ± 1.28
k01 (1/hour)	1.41 ± 821	0.762 ± 103	0.482 ± 1.28	
k01_Half-life (hour)	0.491 ± 286	0.91 ± 123	1.44 ± 381	
k10 (1/hour)	0.375 ± 218	0.293 ± 39.7	0.297 ± 79	1.68 ± 0.161
k10_Half-life (hour)	1.85 ± 1080	2.36 ± 320	2.33 ± 619	0.412 ± 0.0394
k12 (1/hour)	0.849 ± 604	0.402 ± 62.7	0.156 ± 49.5	0.0503 ± 0.0151
k21 (1/hour)	0.257 ± 0.137	0.0972 ± 0.207	0.0814 ± 0.223	0.0892 ± 0.0147
Cl1 (L/h/kg)				0.753 ± 0.102
Cl2 (L/h/kg)				0.0225 ± 0.00797
Cl1_F (L/h/kg)	85.2 ± 20.0	89.1 ± 52.4	70.3 ± 20.8	
Cl2_F (L/h/kg)	193 ± 24800	122 ± 2520	36.9± 1910	
V1 (L/kg)				0.448 ± 0.0811
V2 (L/kg)				0.253 ± 0.0785
Vss (L/kg)				0.700 ± 0.146
V1_F (L/kg)	227 ± 132000	304 ± 41100	237 ± 62900	
V2_F (L/kg)	752 ± 96600	1260 ± 23900	454 ± 24400	
AUCinf_pred (h*ng/mL)	399 ± 93.5	1230 ± 726	4830 ± 1430	45200 ± 6110
F (percent)	0.88	0.84	1.07	

Experiment Number: K08002C | **Toxicokinetics Data Summary** | **Request Date:** 7/28/2020

Route: Gavage, Intravenous | **Compound/Analyte:** Bisphenol AF/Free Bisphenol AF | **Request Time:** 2:30:16

Species/Strain: Rats/Harlan Sprague Dawley | **CAS Number:** 1478-61-1 | **Lab:** TI

Female

	Treatment Group (mg/kg)			
	34 Gav[a] Plasma	**110 Gav[a] Plasma**	**340 Gav[a] Plasma**	**34 IV[b] Plasma**
Cmax_pred (ng/mL)	47.4 ± 8.39	245 ± 29.3	555 ± 99.5	71500 ± 17300
Tmax_pred (hour)	0.767 ± 0.201	0.658 ± 0.1	1.34 ± 0.24	
Alpha (1/hour)	1.81 ± 36.1	1.64 ± 25.8	0.76 ± 26	1.65 ± 0.295
Alpha_Half-life (hour)	0.384 ± 7.67	0.422 ± 6.63	0.912 ± 31.2	0.42 ± 0.0749
Beta (1/hour)	0.0798 ± 0.0249	0.0541 ± 0.0208	0.0156 ± 0.0535	0.135 ± 0.0299
Beta_Half-life (hour)	8.68 ± 2.6	12.8 ± 4.83	44.4 ± 152	5.15 ± 1.15
k01 (1/hour)	1.98 ± 36.9	1.71 ± 26.8	0.777 ± 26.5	
k01_Half-life (hour)	0.35 ± 6.52	0.405 ± 6.32	0.892 ± 30.4	
k10 (1/hour)	0.207 ± 3.81	0.413 ± 6.4	0.303 ± 10.5	1.58 ± 0.26
k10_Half-life (hour)	3.35 ± 61.8	1.68 ± 26	2.29 ± 79.2	0.439 ± 0.0724
k12 (1/hour)	0.981 ± 31.1	1.07 ± 19.3	0.433 ± 15.4	0.0656 ± 0.0398
k21 (1/hour)	0.698 ± 1.29	0.215 ± 0.115	0.0391 ± 0.0929	0.141 ± 0.0339
Cl1 (L/h/kg)				0.751 ± 0.118
Cl2 (L/h/kg)				0.312 ± 0.0177
Cl1_F (L/h/kg)	73.8 ± 13.3	74.7 ± 13.4	70.7 ± 94.0	
Cl2_F (L/h/kg)	350 ± 4650	194 ± 503	101 ± 180	
V1 (L/kg)				0.476 ± 0.115
V2 (L/kg)				0.222 ± 0.0922
Vss (L/kg)				0.697 ± 0.166
V1_F (L/kg)	357 ± 6600	181 ± 2810	233 ± 7920	
V2_F (L/kg)	502 ± 5820	899 ± 2050	2580 ± 6150	
AUCinf_pred (h*ng/mL)	461 ± 82.7	1470 ± 264	4810 ± 6390	45300 ± 7110
F (percent)	1.02	1.00	1.06	

Experiment Number: K08002C | **Toxicokinetics Data Summary** | **Request Date:** 7/28/2020

Route: Gavage, Intravenous | **Compound/Analyte:** Bisphenol AF/Total Bisphenol AF | **Request Time:** 2:30:16

Species/Strain: Rats/Harlan Sprague Dawley | **CAS Number:** 1478-61-1 | **Lab:** TI

Male

	Treatment Group (mg/kg)			
	34 Gav[c] Plasma	**110 Gav[c] Plasma**	**340 Gav[d] Plasma**	**34[e] IV Plasma**
Cmax_pred (ng/mL)	2750 ± 525	7970 ± 1920	15300 ± 6600	96700 ± 20000
Tmax_pred (hour)	0.734 ± 0.18	1.07 ± 0.386	3.97 ± 0.974	
Alpha (1/hour)	1.63 ± 42.9	1.24 ± 379	0.274 ± 14.8	1.35 ± 0.3
Alpha_Half-life (hour)	0.427± 11.2	0.558 ± 170	2.53 ± 136	0.512 ± 0.113
Beta (1/hour)	0.0453 ± 0.0258	0.0582 ± 0.0294	0.0374 ± 0.0608	0.0929 ± 0.0103
Beta_Half-life (hour)	15.3 ± 8.95	11.9 ± 6.14	18.5 ± 29.7	7.46 ± 0.829
k01 (1/hour)	1.55 ± 41.6	1.24 ± 378	0.285 ± 15.1	
k01_Half-life (hour)	0.447 ± 12	0.561 ± 171	2.43 ± 129	
k10 (1/hour)	0.267 ± 7.21	0.19 ± 58.1	0.15 ± 7.98	0.986 ± 0.168
k10_Half-life (hour)	2.6 ± 70.1	3.65 ± 1110	4.61 ± 244	0.703 ± 0.12
k12 (1/hour)	1.13 ± 35.9	0.731 ± 321	0.0931 ± 6.73	0.333 ± 0.149
k21 (1/hour)	0.276 ± 0.308	0.38 ± 0.568	0.0682 ± 0.177	0.128 ± 0.0235
Cl1 (L/h/kg)				0.347 ± 0.0429
Cl2 (L/h/kg)				0.117 ± 0.0498
Cl1_F (L/h/kg)	1.32 ± 0.382	1.17 ± 0.314	1.35 ± 0.303	
Cl2_F (L/h/kg)	5.58 ± 26.9	4.51 ± 603	0.836 ± 16.1	
V1 (L/kg)				0.352 ± 0.0729
V2 (L/kg)				0.917 ± 0.277
Vss (L/kg)				1.27 ± 0.305
V1_F (L/kg)	4.95 ± 134	6.18 ± 1890	8.98 ± 476	
V2_F (L/kg)	20.2 ± 115	11.9 ± 1600	12.3 ± 208	
AUCinf_pred (h*ng/mL)	25700 ± 7450	93700 ± 25100	252000 ± 56400	98000 ± 12100
F (percent)	26.2	29.6	25.7	

Experiment Number: K08002C | **Toxicokinetics Data Summary** | **Request Date:** 7/28/2020

Route: Gavage, Intravenous | **Compound/Analyte:** Bisphenol AF/Total Bisphenol AF | **Request Time:** 2:30:16

Species/Strain: Rats/Harlan Sprague Dawley | **CAS Number:** 1478-61-1 | **Lab:** TI

Female

	Treatment Group (mg/kg)			
	34 Gav[c] Plasma	**110 Gav[c] Plasma**	**340 Gav[d] Plasma**	**34 IV[e] Plasma**
Cmax_pred (ng/mL)	3760 ± 695	10500 ± 2400	15200 ± 5530	130000 ± 29000
Tmax_pred (hour)	0.41 ± 0.126	0.564 ± 0.166	2.19 ± 0.64	
Alpha (1/hour)	3.41 ± 637	2.02 ± 98.8	0.492 ± 12.7	1.5 ± 0.301
Alpha_Half-life (hour)	0.203 ± 37.9	0.344 ± 16.8	1.41 ± 36.5	0.463 ± 0.0933
Beta (1/hour)	0.0712 ± 0.026	0.0179 ± 0.0213	0.00347 ± 0.024	0.113 ± 0.0163
Beta_Half-life (hour)	9.74 ± 2.08	38.7 ± 46.9	200 ± 1380	6.13 ± 0.883
k01 (1/hour)	3.39 ± 634	1.97 ± 96.7	0.513 ± 13.3	
k01_Half-life (hour)	0.204 ± 38.1	0.352 ± 17.2	1.35 ± 35	
k10 (1/hour)	0.229 ± 42.9	0.151 ± 7.41	0.0343 ± 0.993	1.12 ± 0.196
k10_Half-life (hour)	3.03 ± 566	4.59 ± 225	20.2 ± 586	0.62 ± 0.109
k12 (1/hour)	2.19 ± 595	1.64 ± 91.5	0.411 ± 11.7	0.34 ± 0.125
k21 (1/hour)	1.06 ± 0.809	0.24 ± 0.216	0.0498 ± 0.0765	0.151 ± 0.0299
Cl1 (L/h/kg)				0.292 ± 0.0322
Cl2 (L/h/kg)				0.0887 ± 0.0294
Cl1_F (L/h/kg)	0.954 ± 0.172	0.623 ± 0.49	0.309 ± 1.78	
Cl2_F (L/h/kg)	9.14 ± 766	6.78 ± 43.2	3.70 ± 10.3	
V1 (L/kg)				0.261 ± 0.0581
V2 (L/kg)				0.587 ± 0.143
Vss (L/kg)				0.848 ± 0.173
V1_F (L/kg)	4.17 ± 780	4.13 ± 204	9.01 ± 232	
V2_F (L/kg)	8.61 ± 725	28.3 ± 195	74.4 ± 185	
AUCinf_pred (h*ng/mL)	35600 ± 6420	177000 ± 139000	1100000 ± 6340000	117000 ± 12800
F (percent)	30.4	46.8	94.0	

LEGEND

MODELING METHOD & BEST FIT MODEL

[a]WinNonlin Version 6.4 (Certara, Princeton, NJ). Nominal doses (mg/kg) for each group were used. For compartmental models AUC is calculated as Dose/V*K10 and is similar to AUCo to infinity (AUCinf_pred). Free bisphenol AF represents unconjugated bisphenol AF. Two-compartment with first-order input, first-order output, no lag time, micro-constants as primary parameters and 1/y weighting (Model 11)

[b]WinNonlin Version 6.4 (Certara, Princeton, NJ). Nominal doses (mg/kg) for each group were used. For compartmental models AUC is calculated as Dose/V*K10 and is similar to AUCo to infinity (AUCinf_pred). Free bisphenol AF represents unconjugated bisphenol AF. Two-compartment with bolus intravenous dose, first order output and $1/y^2$ weighting (Model 7).

[c]WinNonlin Version 6.4 (Certara, Princeton, NJ). Nominal doses (mg/kg) for each group were used. For compartmental models AUC is calculated as Dose/V*K10 and is similar to AUCo to infinity (AUCinf_pred). Total bisphenol AF represents both conjugated and unconjugated bisphenol AF. Two-compartment with first-order input, first-order output, no lag time, micro-constants as primary parameters , and 1/y weighting (Model 11)

[d]WinNonlin Version 6.4 (Certara, Princeton, NJ). Nominal doses (mg/kg) for each group were used. For compartmental models AUC is calculated as Dose/V*K10 and is similar to AUCo to infinity (AUCinf_pred). Total bisphenol AF represents both conjugated and unconjugated bisphenol AF. Two-compartment with first-order input, first-order output, no lag time, micro-constants as primary parameters , and $1/y^2$ weighting (Model 11)

[e]WinNonlin Version 6.4 (Certara, Princeton, NJ). Nominal doses (mg/kg) for each group were used. For compartmental models AUC is calculated as Dose/V*K10 and is similar to AUCo to infinity (AUCinf_pred). Total bisphenol AF represents both conjugated and unconjugated bisphenol AF. Two-compartment with bolus intravenous dose, first order output and $1/y^2$ weighting (Model 7).

LEGEND (cont'd)

ANALYTE

Free Bisphenol AF
Total Bisphenol AF

TK PARAMETERS

Cmax_pred = Observed or Predicted Maximum plasma (or tissue) concentration
Tmax_pred = Time at which Cmax predicted or observed occurs
Alpha = Hybrid rate constant of the alpha phase
Alpha Half-life = Half-life for the alpha phase
Beta = Hybrid rate constant of the beta phase
Beta Half-life = Half-life for the beta phase
k01 = Absorption rate constant, ka
k01 Half-life = Half-life of the absorption process to the central compartment
k10 = Elimination rate constant from the central compartment also ke or kelim
k10 Half-life = Half-life for the elimination process from the central compartment
k12 = Distribution rate constant from first to second compartment
k21 = Distribution rate constant from second to first compartment
Cl = Clearance, includes total clearance
Cl1 = Clearance of central compartment, Clapp or apparent clearance for intravenous groups
Cl2 = Clearance of the secondary compartment
Cl1_F = Apparent clearance of the central compartment, also Cl_F for gavage groups in non-compartmental model
Cl2_F = Apparent clearance of the secondary compartment
V1 = Volume of distribution of the central compartment, includes Vd and V volume of distribution, Vz apparent volume of distribution NCA, Vapp apparent volume of distribution for intravenous studies
V2 = Volume of distribution for the peripheral compartment
Vss = Volume of distribution at steady state

TK PARAMETERS (cont'd)

V1_F = Apparent volume of distribution for the central compartment includes Vd_F, V_F for oral groups, and Vc_F
V2_F = Apparent volume of distribution for the peripheral compartment
AUCinf_pred = Area under the plasma concentration versus time curve, AUC, extrapolated to time equals infinity
F = Bioavailability, absolute bioavailability

TK PARAMETERS PROTOCOL

PLASMA

TK Parameters (Analyte Free Bisphenol AF)

Gavage 34 mg/kg Male, Gavage 110 mg/kg Male, Gavage 340 mg/kg Male

Eighteen animals per group were given a single oral gavage administration of bisphenol AF in corn oil. Doses were administered at a volume of 5 mL/kg (rats) and 10 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Free bisphenol AF is unconjugated (parent) bisphenol AF. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

34 mg/kg Intravenous Male

Eighteen animals per group were given a single intravenous administration of bisphenol AF in deionized water/Cremophor EL/95 percent ethanol (67/23/10) (v/v/v). Doses were administered at a volume of 2 mL/kg (rats) and 4 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Free is unconjugated (parent) bisphenol AF. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

TK PARAMETERS PROTOCOL (cont'd)

PLASMA

TK Parameters (Analyte Free Bisphenol AF)

Gavage 34 mg/kg Female, Gavage 110 mg/kg Female, Gavage 340 mg/kg Female

Eighteen animals per group were given a single oral gavage administration of bisphenol AF in corn oil. Doses were administered at a volume of 5 mL/kg (rats) and 10 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Free bisphenol AF is unconjugated (parent) bisphenol AF. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

34 mg/kg Intravenous Female

Eighteen animals per group were given a single intravenous administration of bisphenol AF in deionized water/Cremophor EL/95 percent ethanol (67/23/10) (v/v/v). Doses were administered at a volume of 2 mL/kg (rats) and 4 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Free is unconjugated (parent) bisphenol AF. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

TK PARAMETERS PROTOCOL

PLASMA

TK Parameters (Analyte Free Bisphenol AF)

Gavage 34 mg/kg Male, Gavage 110 mg/kg Male, Gavage 340 mg/kg Male

Eighteen animals per group were given a single oral gavage administration of bisphenol AF in corn oil. Doses were administered at a volume of 5 mL/kg (rats) and 10 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is unconjugated (free) plus conjugated bisphenol. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

Intravenous 34 mg/kg Male

Eighteen animals per group were given a single intravenous administration of bisphenol AF in deionized water/Cremophor EL/95 percent ethanol (67/23/10) (v/v/v). Doses were administered at a volume of 2 mL/kg (rats) and 4 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is conjugated plus unconjugated (free) bisphenol AF. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

TK PARAMETERS PROTOCOL (cont'd)

PLASMA

TK Parameters (Analyte Total Bisphenol AF)

Gavage 34 mg/kg Male, Gavage 110 mg/kg Male, Gavage 340 mg/kg Male

Eighteen animals per group were given a single oral gavage administration of bisphenol AF in corn oil. Doses were administered at a volume of 5 mL/kg (rats) and 10 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is unconjugated (free) plus conjugated bisphenol. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

Intravenous 34 mg/kg Male

Eighteen animals per group were given a single intravenous administration of bisphenol AF in deionized water/Cremophor EL/95 percent ethanol (67/23/10) (v/v/v). Doses were administered at a volume of 2 mL/kg (rats) and 4 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is conjugated plus unconjugated (free) bisphenol AF.
For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

TK PARAMETERS PROTOCOL (cont'd)

PLASMA

TK Parameters (Analyte Total Bisphenol AF)

Gavage 34 mg/kg Female, Gavage 110 mg/kg Female, Gavage 340 mg/kg Female

Eighteen animals per group were given a single oral gavage administration of bisphenol AF in corn oil. Doses were administered at a volume of 5 mL/kg (rats) and 10 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is unconjugated (free) plus conjugated bisphenol. For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.

Intravenous 34 mg/kg Female

Eighteen animals per group were given a single intravenous administration of bisphenol AF in deionized water/Cremophor EL/95 percent ethanol (67/23/10) (v/v/v). Doses were administered at a volume of 2 mL/kg (rats) and 4 mL/kg (mice). Blood samples were taken at 0, 5, 15, 30, 60 minutes and 2, 4, 8, 12, 24, 32, and 48 hours for both rat and mouse. Zero-hour collections were made pre-dose. Each animal was sampled twice. n=3 per time point. Total is conjugated plus unconjugated (free) bisphenol AF.
For free and total analysis, plasma samples were prepared using acetonitrile protein precipitation and analyzed using a validated liquid chromatography with mass spectrometric detection (LC/MS/MS) method. A glucuronidase/sulfate enzyme was used to deconjugate BPAF in the analysis for total BPAF. The method was linear over the range of approximately 2.8 to approximately 105 ng/mL in plasma. Limit of detection was 0.82 ng/mL.