Data Article

Raw data of the effects of Chlorogenic acid in 3-Nitropropionic acid induced toxicity and genotoxicity

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A B S T R A C T

The raw data showed in this article comes from the published research article entitled “Protective effects of Chlorogenic acid in 3-Nitropropionic acid induced toxicity and genotoxicity” Food Chem Toxicol. 2017 May 3. pii: S0278-6915(17)30226-0. http://dx.doi.org/DOI:10.1016/j.fct.2017.04.048. [1]. Data illustrates antitoxic and antigenotoxic effects of Chlorogenic acid (CGA) on toxicity and genotoxicity produced by the in vivo treatment with mitochondria toxin 3-Nitropropionic acid (3-NP) in mice. Toxicity and genotoxicity was evaluated in erythrocytes of peripheral blood through the micronuclei assay. Data was share at the Elsevier repository under the reference number FCT9033. 

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Specifications Table

| Subject area          | Biology                  |
|-----------------------|--------------------------|
| More specific subject area | Toxicology              |
| Type of data          | Tables                   |
| How data was acquired | Data from erythrocytes from peripheral blood, stained with H&E were classified in Normochromatic, Polychromatic or Polychromatic with micronuclei cells. 1000 cells per each condition were counted with the aid of by the aid of an optic microscope (Leica, Microsystems AG). |
| Data format           | Raw data                 |
| Experimental factors  | In order to determine toxicity and genotoxicity of 3-NP, as well as protective effects of CGA, 6 experimental groups were evaluated; Negative control, Control (PB), 3-NP, CGA, 3-NP + CA, P/CA, 3-NP + CA and P/CA, 3-NP. Each treatment lasted for 5 days except those where 5 days of pretreatment was present. |
| Experimental features | To evaluate toxic and genotoxic effect of 3-NP and the antitoxic and antigenotoxic effects of CGA in erythrocytes. |
| Data source location  | México City, México      |
| Data accessibility    | Data are available in this article and were place also in a public repository provided by Elsevier submission system, under reference number FCT9033 |

Value of the data

- Data displays Normochromatic, Polychromatic or Polychromatic cells with micronuclei in the different experimental conditions and can be used by other research groups.
- Toxicity and Genotoxicity were measured in peripheral blood by using the micronuclei assay.
- These data are important because few studies have carried out to evaluate toxicity and genotoxicity of 3-NP which can be found in plants like sugar cane that are eaten by cattle and humans.
- Data about CGA protective effects are important because CGA is found in a variety of food products which can help to protect the health of living organisms.

1. Data

Raw data presented in this paper gives information about protective role of CGA on toxic and genotoxic effects of 3-NP in erythrocytes from peripheral blood. Data are shown in Tables 1–7 which illustrate the effect in each evaluated time.

2. Experimental design, materials and methods

To evaluate toxic effect of 3-NP and the antitoxic effect of Chlorogenic acid, mice were randomly assigned to one of the following experimental groups: negative control, ifosfamide (positive control), buffer, 3-nitropropionic acid (3-NP), Chlorogenic acid (CGA), 3-NP + Chlorogenic acid without pretreatment (3-NP + CA, W/P), 3-NP + Chlorogenic acid together with pretreatment of CA per 5 days (P/CA, 3-NP + CA), pretreatment with CA for 5 days and later treatment of 3-NP alone, (P/CA, 3-NP). All groups were treated for 5 days with i.p. doses of 3-NP (15 mg/kg), CGA (100 mg/kg).
Table 1
Data obtained at 24 h measurements. Normochromatic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Poly-
chromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid
(CGA), Pretreatment of Chlorogenic acid (P/CGA).

| Treatment | Negative Control | Animal | CN | PC | PMNC | %TOX | %GEN |
|-----------|------------------|--------|----|----|------|------|------|
|           |                  | 1      | 808| 192| 5    | 19.2 | 0.5  |
|           |                  | 2      | 803| 197| 5    | 19.7 | 0.5  |
|           |                  | 3      | 784| 216| 4    | 21.6 | 0.4  |
|           |                  | 4      | 798| 202| 2    | 20.2 | 0.2  |
|           |                  | 5      | 813| 187| 2    | 18.5 | 0.2  |
|           | Ifosfamide       | 1      | 860| 149| 21   | 14.9 | 2.1  |
|           |                  | 2      | 875| 125| 22   | 12.5 | 2.2  |
|           |                  | 3      | 801| 199| 25   | 19.9 | 2.5  |
|           |                  | 4      | 855| 145| 20   | 14.5 | 2    |
|           |                  | 5      | 831| 169| 13   | 16.9 | 1.3  |
|           | Buffer           | 1      | 811| 189| 3    | 18.9 | 0.3  |
|           |                  | 2      | 787| 213| 5    | 21.3 | 0.5  |
|           |                  | 3      | 771| 229| 2    | 22.9 | 0.2  |
|           |                  | 4      | 814| 186| 4    | 18.6 | 0.4  |
|           |                  | 5      | 805| 195| 3    | 19.5 | 0.3  |
|           | 3-NP             | 1      | 878| 122| 20   | 12.2 | 2    |
|           |                  | 2      | 889| 111| 19   | 11.1 | 1.9  |
|           |                  | 3      | 895| 105| 15   | 10.5 | 1.5  |
|           |                  | 4      | 917| 83  | 15   | 8.3  | 1.5  |
|           |                  | 5      | 933| 97  | 13   | 9.7  | 1.3  |
|           | CGA              | 1      | 835| 165| 3    | 16.5 | 0.3  |
|           |                  | 2      | 828| 172| 5    | 17.2 | 0.5  |
|           |                  | 3      | 817| 183| 4    | 18.3 | 0.4  |
|           |                  | 4      | 810| 190| 3    | 19   | 0.3  |
|           |                  | 5      | 812| 188| 2    | 18.8 | 0.2  |
|           | 3NP + CGA        | 1      | 843| 157| 10   | 15.7 | 1    |
|           |                  | 2      | 840| 160| 10   | 16.0 | 1    |
|           |                  | 3      | 835| 165| 13   | 16.5 | 1.3  |
|           |                  | 4      | 810| 190| 11   | 19.0 | 1.1  |
|           |                  | 5      | 812| 188| 12   | 18.8 | 1.2  |
|           | P/CGA, 3NP + CGA | 1      | 797| 203| 6    | 20.3 | 0.6  |
|           |                  | 2      | 813| 187| 8    | 18.7 | 0.8  |
|           |                  | 3      | 801| 199| 3    | 19.9 | 0.3  |
|           |                  | 4      | 796| 204| 3    | 20.4 | 0.3  |
|           |                  | 5      | 807| 193| 5    | 19.3 | 0.5  |
|           |                  | 1      | 830| 170| 11   | 17   | 1.1  |
|           |                  | 2      | 839| 161| 9    | 16.1 | 0.9  |
|           |                  | 3      | 848| 152| 10   | 15.2 | 1    |
|           |                  | 4      | 885| 115| 8    | 11.5 | 0.8  |
|           |                  | 5      | 855| 145| 8    | 14.5 | 0.8  |
Table 2
Data obtained at 48 h measurements. Normochromic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

| 48 h Treatment | Negative control | Animal | CN | PC | PMC | %TOX | %GEN |
|----------------|------------------|--------|----|----|-----|------|------|
|                |                  | 1      | 789| 211| 5   | 21.1 | 0.5  |
|                |                  | 2      | 783| 217| 3   | 21.7 | 0.3  |
|                |                  | 3      | 810| 190| 6   | 19   | 0.6  |
|                |                  | 4      | 801| 194| 5   | 19.4 | 0.5  |
|                |                  | 5      | 810| 190| 1   | 19   | 0.1  |

| Treatment      | Ifosfamide       | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 857| 143| 15  | 14.3 | 1.5  |
|                |                  | 2      | 862| 148| 17  | 14.8 | 1.7  |
|                |                  | 3      | 877| 123| 15  | 12.3 | 1.5  |
|                |                  | 4      | 859| 141| 18  | 14.2 | 1.8  |
|                |                  | 5      | 865| 135| 18  | 13.5 | 1.8  |

| Treatment      | Buffer           | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 817| 183| 5   | 18.3 | 0.5  |
|                |                  | 2      | 807| 193| 6   | 19.3 | 0.6  |
|                |                  | 3      | 760| 240| 5   | 24   | 0.5  |
|                |                  | 4      | 820| 180| 5   | 18   | 0.5  |
|                |                  | 5      | 790| 210| 5   | 21   | 0.5  |

| Treatment      | 3-NP             | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 870| 130| 11  | 13   | 1.1  |
|                |                  | 2      | 891| 109| 10  | 10.9 | 1.0  |
|                |                  | 3      | 816| 184| 13  | 18.4 | 1.3  |
|                |                  | 4      | 850| 150| 10  | 15   | 1.0  |
|                |                  | 5      | 877| 123| 10  | 12.3 | 1.0  |

| Treatment      | CGA              | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 793| 207| 4   | 20.7 | 0.4  |
|                |                  | 2      | 806| 194| 7   | 19.4 | 0.7  |
|                |                  | 3      | 807| 193| 5   | 19.3 | 0.5  |
|                |                  | 4      | 800| 200| 6   | 20   | 0.6  |
|                |                  | 5      | 810| 190| 5   | 19   | 0.5  |

| Treatment      | 3-NP + CGA       | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 847| 153| 10  | 15.3 | 1.0  |
|                |                  | 2      | 855| 165| 11  | 16.5 | 1.1  |
|                |                  | 3      | 833| 167| 10  | 16.7 | 1.1  |
|                |                  | 4      | 832| 168| 11  | 16.8 | 1.1  |
|                |                  | 5      | 827| 183| 12  | 18.3 | 1.2  |

| Treatment      | P/CGA, 3-NP + CGA| Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|-------------------|--------|----|----|------|------|------|
|                |                   | 1      | 797| 203| 2   | 20.3 | 0.2  |
|                |                   | 2      | 830| 170| 4   | 17   | 0.4  |
|                |                   | 3      | 794| 206| 2   | 20.6 | 0.2  |
|                |                   | 4      | 788| 212| 6   | 21.2 | 0.6  |
|                |                   | 5      | 799| 201| 5   | 20.1 | 0.5  |

| Treatment      | P/CGA, 3-NP       | Animal | CN | PC | PMNC | %TOX | %GEN |
|----------------|------------------|--------|----|----|------|------|------|
|                |                  | 1      | 857| 163| 7   | 16.3 | 0.7  |
|                |                  | 2      | 818| 182| 8   | 18.2 | 0.8  |
|                |                  | 3      | 870| 130| 10  | 13   | 1.0  |
|                |                  | 4      | 876| 128| 2   | 12.8 | 0.2  |
|                |                  | 5      | 820| 180| 6   | 18   | 0.6  |
Table 3
Data obtained at 72 h measurements. Normochromatic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

| Treatment | Animal | CN  | PC  | PMNC | %TOX | %GEN |
|-----------|--------|-----|-----|------|-------|------|
| Negative Control | 1 | 794 | 205 | 3   | 20.5  | 0.3  |
|              | 2 | 799 | 201 | 3   | 20.1  | 0.3  |
|              | 3 | 799 | 201 | 3   | 20.1  | 0.3  |
|              | 4 | 791 | 209 | 2   | 20.9  | 0.2  |
|              | 5 | 795 | 205 | 3   | 20.5  | 0.3  |
| Treatment Ifosfamide | 1 | 832 | 168 | 25  | 16.8  | 2.5  |
|              | 2 | 838 | 162 | 26  | 16.2  | 2.6  |
|              | 3 | 751 | 249 | 25  | 24.9  | 2.5  |
|              | 4 | 885 | 175 | 24  | 17.5  | 2.5  |
|              | 5 | 783 | 217 | 17  | 21.7  | 1.7  |
| Treatment Buffer | 1 | 803 | 197 | 5   | 19.7  | 0.5  |
|              | 2 | 801 | 199 | 4   | 19.9  | 0.4  |
|              | 3 | 756 | 244 | 5   | 24.4  | 0.5  |
|              | 4 | 826 | 174 | 4   | 17.4  | 0.4  |
|              | 5 | 800 | 200 | 5   | 20    | 0.5  |
| Treatment 3-NP | 1 | 879 | 121 | 20  | 12.1  | 2    |
|              | 2 | 862 | 138 | 17  | 13.8  | 1.7  |
|              | 3 | 860 | 140 | 17  | 14    | 1.7  |
|              | 4 | 838 | 162 | 19  | 16.2  | 1.9  |
|              | 5 | 855 | 145 | 17  | 14.5  | 1.7  |
| Treatment CGA | 1 | 799 | 201 | 4   | 20.1  | 0.4  |
|              | 2 | 827 | 173 | 5   | 17.3  | 0.5  |
|              | 3 | 785 | 215 | 4   | 21.5  | 0.4  |
|              | 4 | 808 | 192 | 8   | 19.2  | 0.8  |
|              | 5 | 800 | 200 | 6   | 20    | 0.6  |
| Treatment 3-NP + CGA | 1 | 820 | 180 | 9   | 18    | 0.9  |
|              | 2 | 821 | 179 | 9   | 17.9  | 0.9  |
|              | 3 | 816 | 184 | 12  | 18.4  | 1.2  |
|              | 4 | 810 | 190 | 11  | 19    | 1.1  |
|              | 5 | 815 | 185 | 10  | 8.5   | 1    |
| Treatment P/CGA, 3-NP + CGA | 1 | 790 | 210 | 5   | 21    | 0.5  |
|              | 2 | 795 | 205 | 3   | 20.5  | 0.3  |
|              | 3 | 796 | 204 | 2   | 20.4  | 0.2  |
|              | 4 | 789 | 211 | 3   | 21.1  | 0.3  |
|              | 5 | 797 | 203 | 4   | 20.3  | 0.4  |
| Treatment P/CGA, 3-NP | 1 | 846 | 154 | 7   | 15.4  | 0.7  |
|              | 2 | 832 | 168 | 7   | 16.8  | 0.7  |
|              | 3 | 868 | 132 | 10  | 13.2  | 1    |
|              | 4 | 857 | 143 | 5   | 14.3  | 0.5  |
|              | 5 | 849 | 151 | 9   | 15.1  | 0.9  |
Extraction and Characterization of CGA: Aerial parts of B. scordoides (300 g) were dried, ground and extracted with hexane and methanol in succession. The methanolic portion was evaporated under reduced pressure at 55 °C to obtain a syrup residue (30 g). CGA was isolated from methanolic extract by open column chromatography using SiO2.

Micronuclei Assay: Samples of peripheral blood were obtained from the mice caudal vein at 24 h, 48 h, 72 h, 96 h, 120 h and 144 h after starting each treatment in each experimental group. A drop of blood was placed on a glass slide (3 slides per mice) and fixed with methanol for further H&E staining for 10 min.

Table 4
Data obtained at 96 h measurements. Normochromatic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micrornuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).
Table 5
Data obtained at 120 h measurements. Normochromatic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

| 120 h Treatment | Negative Control | PC | PMNC | %TOX | %GEN |
|-----------------|------------------|----|------|-------|------|
| Animal          | CN               |    |      |       |      |
| 1               | 803              | 197| 3    | 19.7  | 0.3  |
| 2               | 769              | 231| 5    | 23.1  | 0.5  |
| 3               | 796              | 204| 2    | 20.4  | 0.2  |
| 4               | 803              | 193| 3    | 19.3  | 0.3  |
| 5               | 805              | 195| 3    | 19.5  | 0.3  |
| Treatment       | Buffer           | CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 805              | 195| 3    | 19.5  | 0.3  |
| 2               | 816              | 184| 4    | 18.4  | 0.4  |
| 3               | 766              | 234| 5    | 23.4  | 0.5  |
| 4               | 808              | 192| 3    | 19.2  | 0.3  |
| 5               | 789              | 211| 4    | 21.1  | 0.4  |
| Treatment       | 3-NP             | CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 888              | 112| 10   | 11    | 1    |
| 2               | 873              | 127| 16   | 12.7  | 1.6  |
| 3               | 868              | 132| 17   | 13.2  | 1.7  |
| 4               | 863              | 137| 16   | 13.7  | 1.6  |
| 5               | 871              | 129| 15   | 12.9  | 1.5  |
| Treatment       | CGA              | CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 820              | 180| 4    | 18    | 0.4  |
| 2               | 793              | 207| 5    | 20.7  | 0.5  |
| 3               | 779              | 221| 4    | 22.1  | 0.4  |
| 4               | 800              | 200| 6    | 20    | 0.6  |
| 5               | 808              | 192| 10   | 19.2  | 1    |
| Treatment       | 3-NP + CGA       | CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 824              | 176| 17   | 17.6  | 1.7  |
| 2               | 809              | 191| 14   | 19.1  | 1.4  |
| 3               | 817              | 183| 15   | 18.3  | 1.5  |
| 4               | 821              | 179| 16   | 17.9  | 1.6  |
| 5               | 817              | 183| 15   | 18.3  | 1.5  |
| Treatment       | P/CGA, 3-NP + CGA| CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 787              | 213| 3    | 21.3  | 0.3  |
| 2               | 819              | 181| 3    | 18.1  | 0.3  |
| 3               | 785              | 215| 3    | 21.5  | 0.3  |
| 4               | 800              | 200| 4    | 20    | 0.4  |
| 5               | 771              | 229| 4    | 22.9  | 0.4  |
| Treatment       | P/CGA, 3-NP      | CN |      |       |      |
| Animal          | PC               | PMNC| %TOX | %GEN |
| 1               | 816              | 184| 9    | 18.4  | 0.9  |
| 2               | 824              | 176| 8    | 17.6  | 0.8  |
| 3               | 783              | 217| 7    | 21.7  | 0.8  |
| 4               | 829              | 171| 7    | 17.1  | 0.7  |
| 5               | 858              | 142| 12   | 14.2  | 1.2  |
Polychromatic and normochromic cells of peripheral blood were counted with the aid of an optic microscope (Leica, Microsystems AG). Cells were classified in normochromic (CN), polychromatric (PC), polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

Table 6
Data obtained at 144 h measurements. Normochromic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

| 144 h (6 days) Treatment | Negative Control | Animal | PC | PMNC | %TOX | %GEN |
|-------------------------|------------------|--------|----|------|------|------|
| Treatment 3-NP | CN | 851 | 149 | 19 | 14.9 | 1.9 |
| 1 | PC | 837 | 163 | 19 | 16.3 | 1.9 |
| 2 | PMNC | 840 | 160 | 17 | 16 | 1.7 |
| 3 | %TOX | 845 | 155 | 17 | 15.5 | 1.7 |
| 4 | %GEN | 1 | 833 | 167 | 11 | 6.7 | 1.1 |
| 5 | 2 | 814 | 186 | 12 | 18.6 | 1.2 |
| 3 | 1 | 821 | 179 | 15 | 17.9 | 1.5 |
| 4 | 2 | 836 | 165 | 13 | 16.5 | 1.3 |
| 5 | Pretreatment of Chlorogenic acid (3-NP) | 1 | 820 | 180 | 15 | 18 | 1.5 |
| 2 | 2 | 770 | 230 | 2 | 23 | 0.3 |
| 3 | 2 | 795 | 205 | 3 | 20.5 | 0.3 |
| 4 | 3 | 767 | 233 | 3 | 23.3 | 0.3 |
| 5 | 4 | 766 | 234 | 3 | 23.4 | 0.3 |
| 5 | 5 | 753 | 247 | 4 | 24.7 | 0.4 |
| Treatment P/CGA, 3-NP | CN | 830 | 170 | 5 | 17 | 0.5 |
| 1 | PC | 817 | 183 | 6 | 18.3 | 0.6 |
| 2 | PMNC | 813 | 187 | 12 | 18.7 | 1.2 |
| 3 | %TOX | 825 | 175 | 12 | 17.5 | 1.2 |
| 4 | %GEN | 1 | 827 | 173 | 7 | 17.3 | 0.7 |

Polychromatic and normochromic cells of peripheral blood were counted with the aid of an optic microscope (Leica, Microsystems AG). Cells were classified in normochromic (CN), polychromatric (PC), polychromatic with micronuclei cells (MNC) in 1000 observed cells per each experimental condition in every evaluated time.

Genotoxicity index (%) and toxicity index (%) was calculated through the Hayashi and cols., method [3].
Table 7
Global Toxicity and Genotoxicity obtained by averaging data condition for every time evaluated are display in this table. Normochromatic erythrocyte cells (CN), Polychromatic erythrocyte cells (PC), Polychromatic cells with micronuclei (PMNC), Toxicity (TOX), Genotoxicity (Gen), 3-Nitropropionic acid (3-NP), Chlorogenic acid (CGA), Pretreatment of Chlorogenic acid (P/CGA).

| Global Toxicity | Time | Negative Control | Ifosfamide | Buffer | 3-NP | CGA | 3-NP + CGA | P/CGA, 3-NP | P/CGA, 3-NP |
|-----------------|------|------------------|------------|--------|------|-----|-----------|-----------|-----------|
|                 | 24 h | 19.84            | 15.74      | 20.24  | 10.36| 17.96| 17.2      | 19.72     | 14.86     |
|                 | 48 h | 20.04            | 13.82      | 20.12  | 13.92| 19.68| 16.72     | 19.84     | 15.66     |
|                 | 72 h | 20.42            | 19.42      | 20.28  | 14.12| 19.62| 16.36     | 20.66     | 14.96     |
|                 | 96 h | 19.82            | 20.06      | 13.96  | 20.1 | 17.86| 18.24     | 20.4      | 17.44     |
|                 | 120 h| 20.4             | 20.32      | 12.7   | 20   | 18.24| 20.76     | 17.8      |           |

| Global Genotoxicity | Time | Negative Control | Ifosfamide | Buffer | 3-NP | CGA | 3-NP + CGA | P/CGA, 3-NP | P/CGA, 3-NP |
|---------------------|------|------------------|------------|--------|------|-----|-----------|-----------|-----------|
|                     | 24 h | 0.36             | 2.02       | 0.34   | 1.64| 0.34| 1.12      | 0.5       | 0.92      |
|                     | 48 h | 0.4              | 1.66       | 0.52   | 1.08| 0.54| 1.08      | 0.38      | 0.66      |
|                     | 72 h | 0.28             | 2.36       | 0.46   | 1.8 | 0.54| 1.02      | 0.34      | 0.76      |
|                     | 96 h | 0.4              | 0.46       | 1.42   | 0.52| 1.66| 0.4       | 0.7       |           |
|                     | 120 h| 0.32             | 0.38       | 1.48   | 0.58| 1.54| 0.34      | 0.88      |           |

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Transparency document. Supporting information

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