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**Figure 2** γ-glutamyltranspeptidase specific activity in the serum of control and DEN-treated mice during DEN administration (25 mg/kg b.wt.) up to 12 weeks. Age-matched normal mice served as Control.
* P < 0.001, n = 25.

**Figure 3** Liver γ-glutamyltranspeptidase specific activity in the supernatant fraction of control and DEN-treated mice after 12 weeks of DEN administration (25 mg/kg b.wt.). Age-matched normal mice served as Control.
* P < 0.001, n = 25.

**Figure 4** Acetylcholine esterase specific activity in the serum of Control and DEN-treated mice upon DEN administration (25 mg/kg b.wt.) up to 12 weeks. Age-matched normal mice served as Control.
* P < 0.001, n = 25.

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* P < 0.001, n = 25.

**Figure 6** Liver section showing details of hepatic cells. Normal (A) and DEN exposed (B) mice. Haematoxylin and eosin counterstain. M X 250.

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**Figure 8** Humoral immune response against tumor-associated antigens in DEN-exposed mice. Antibody titer was measured separately in pooled immune sera of different group of animals collected at different time points. The means ± SD of the antibody in triplicate wells as determined by ELISA in 1:10 diluted serum sample.
* P < 0.001 against control.
**Figure 9** Immunoblotting after SDS-PAGE separation on Phast Gel gradient 10-15. The transfer to a NC membrane was performed for 20 minutes at 20°C. The blot was reacted with mice antisera directed against TAA, incubated with Protein A-peroxidase conjugate and the immune complex was visualized by DAB. Left: the gel stained with Phast gel Blue R. Right: immunoblot of TAA.

**Figure 10** BrdU incorporation into DNA of lymphocytes of DEN-treated and immunized mice. Immunized mice were sacrificed on 3rd day after booster injection. Lymphocytes from spleen were harvested and were reciprocally diluted in DMEM containing 10% heat inactivated FCS (fetal calf serum), 2 mM L-glutamine, 0.55 mM L-arginine, 0.24 mM L-asparagine-monohydrate and assayed immediately for BrdU incorporation. Each point shows the mean SD of 3 replicates from five mice each.

**Figure 11** BrdU incorporation into DNA of proliferating lymphocytes. RBC deprived lymphocytes (3x10⁵/100 μl of culture medium) were seeded into wells of ELISA plate and cultured in vitro. BrdU was performed at zero point and after 6, 12 & 24 h culture. Each point shows the mean ± SD of 3 replicates from five mice each.

**Figure 12** Absorbance measurement as a function of metabolic activity of viable cells. Lymphocytes (10⁶/well) were taken from DEN-treated and immunized mice. Metabolic activity was measured using the MTT Cell proliferation Kit. Each point shows the mean ± SD of 3 replicates from five mice each.

* P < 0.0001

**Figure 13** Liver sections of mice showing hepatic cells. Normal (A), DEN exposed (B) and Immunized: 40 day (C) & 60 day (D), Haematoxylin and eosin counterstain. M X250.

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* P < 0.001 against DEN-treated, n = 17

**Figure 15** Liver Acetylcholine esterase Specific Activity in the supernatant fraction of Normal DEN-treated and Immunized mice after DEN administration.

* P < 0.001 against DEN-treated, n = 17

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