**SUPPLEMENTARY MATERIALS**

# Deoxynivalenol induces structural alterations in epidermoid carcinoma cells A431 and impairs the response to biomechanical stimulation

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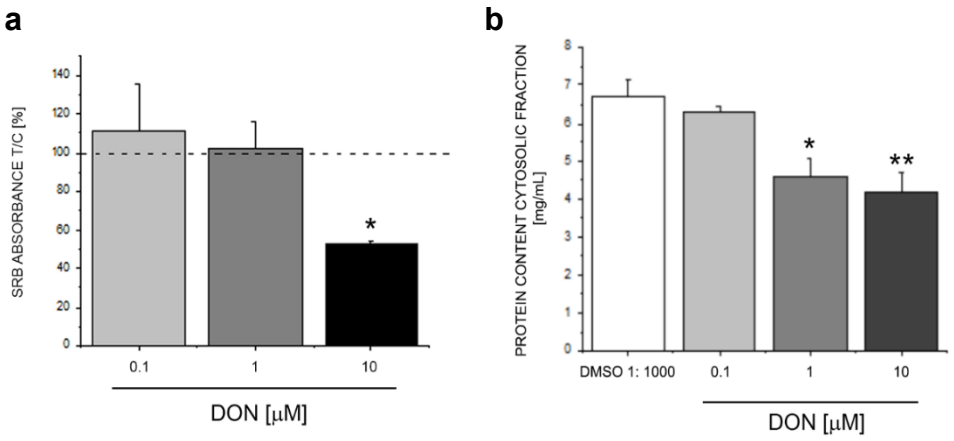
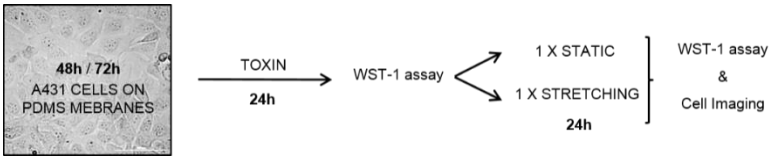
**Fig. S1**



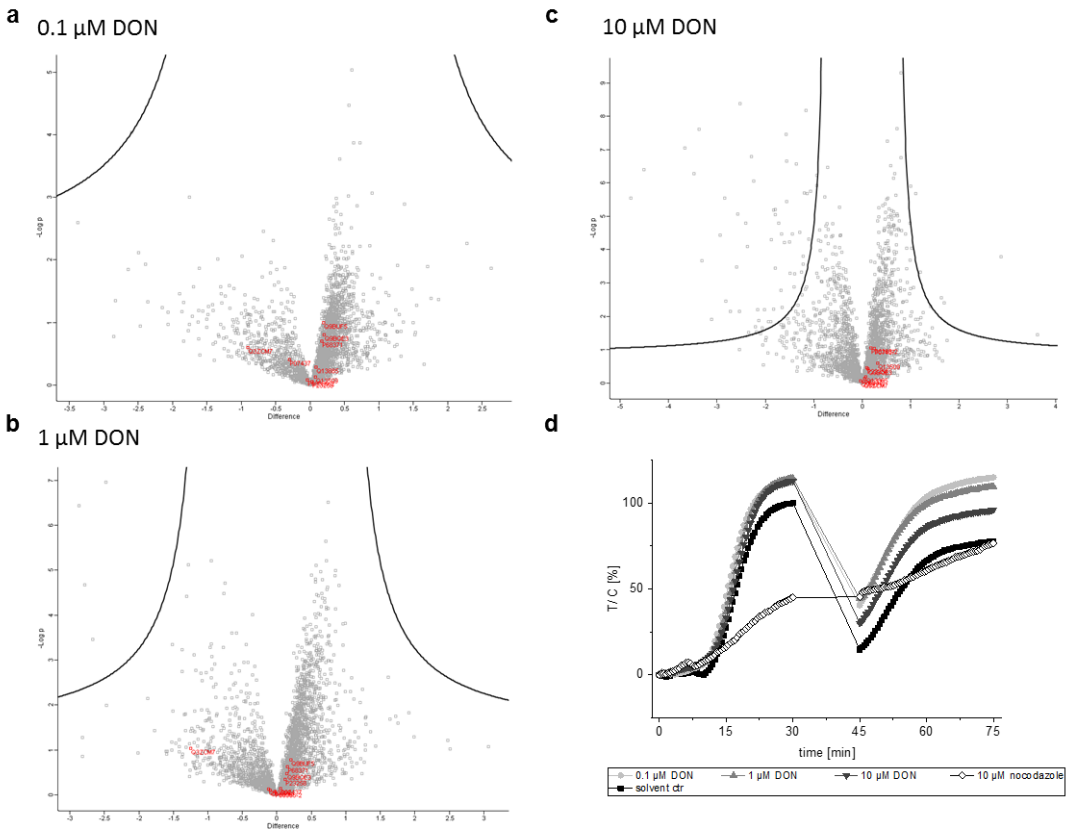

**Supplementary Materials Fig. S1**. Protein quantification in A431 cells after 24h incubation with DON. (**a**) SRB assay. Data are expressed as test / control [%] and depicted as mean ± S.E. n=3-4 independent experiments performed in triplicate. (**b**) Bradford assay quantification of protein content in the cytosolic fraction. */** indicates at 0.05 and 0.01 level different population means in comparison to incubation with 0.1 µM DON (**a**) or solvent control (DMSO 1:1000; **b**) ANOVA.

**Fig. S2**



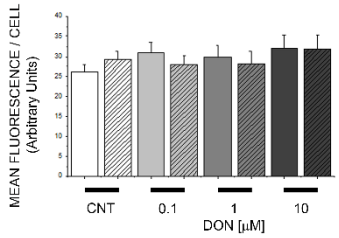

**Supplementary Materials Fig. S2.** Schematic representation of the experimental workflow of the results presented in Figures 4; 5; 6.

**Fig. S3**



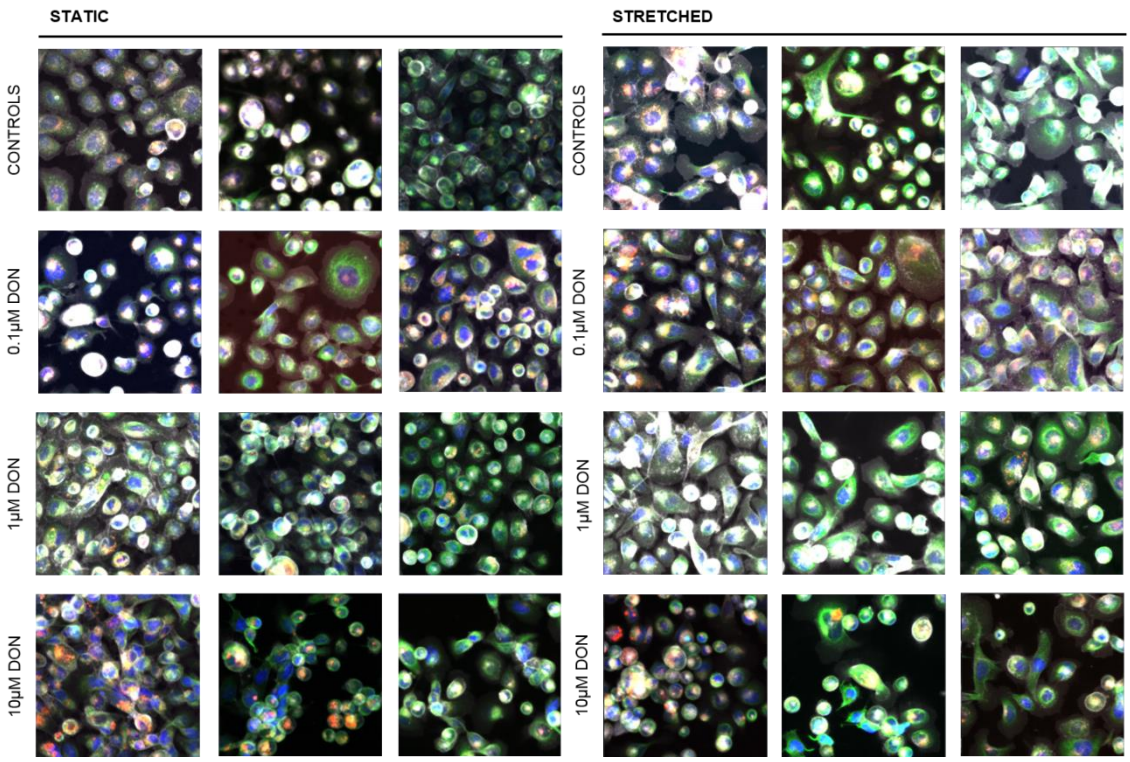

**Supplementary Materials Fig. S3.** Volcano plots describing DON-induced proteome alterations in A431 cells. In red tubulin isoforms (Q9BQE3; P68366; P07437; Q13885; Q13509; P68371; Q9BUF5; Q3ZCM7; P23258) expressed by A431 cells and relative abundance after incubation with DON 0.1 µM (**a**), 1 µM (**b**) and 10 µM (**c**). Effect of DON (0.1-10 µM) on tubulin polymerization (**d**) in comparison to solvent control (black) and tubulin polymerization inhibitor Nocodazole (10 µM, white). Tubulin polymerization assay was performed with a commercial kit (17-10194 *In vitro* Tubulin Polymerization Assay Kit (≥ 99% Pure Bovine Tubulin) from Chemicon, Merck Millipore according to the specification of the supplier.

**Fig. S4**




**Supplementary Materials Fig. S4**. Mean fluorescence signal of cellular nuclei stained with Hoechst 33258. Solid bars refer to static incubation and striped bars refer to stretched incubation of control cells (white background) and pre-incubation with DON (grey background). Data are expressed as mean ± S.E. and quantification is the result of n ≥ 45 cells randomly from 3 independent experiments.

**Fig. S5**




**Supplementary Materials Fig. S5.** Additional representative images acquired during the performance of the experiments. Static and Stretched membranes were always incubated in parallel and each column has been obtained with a different cell preparation.