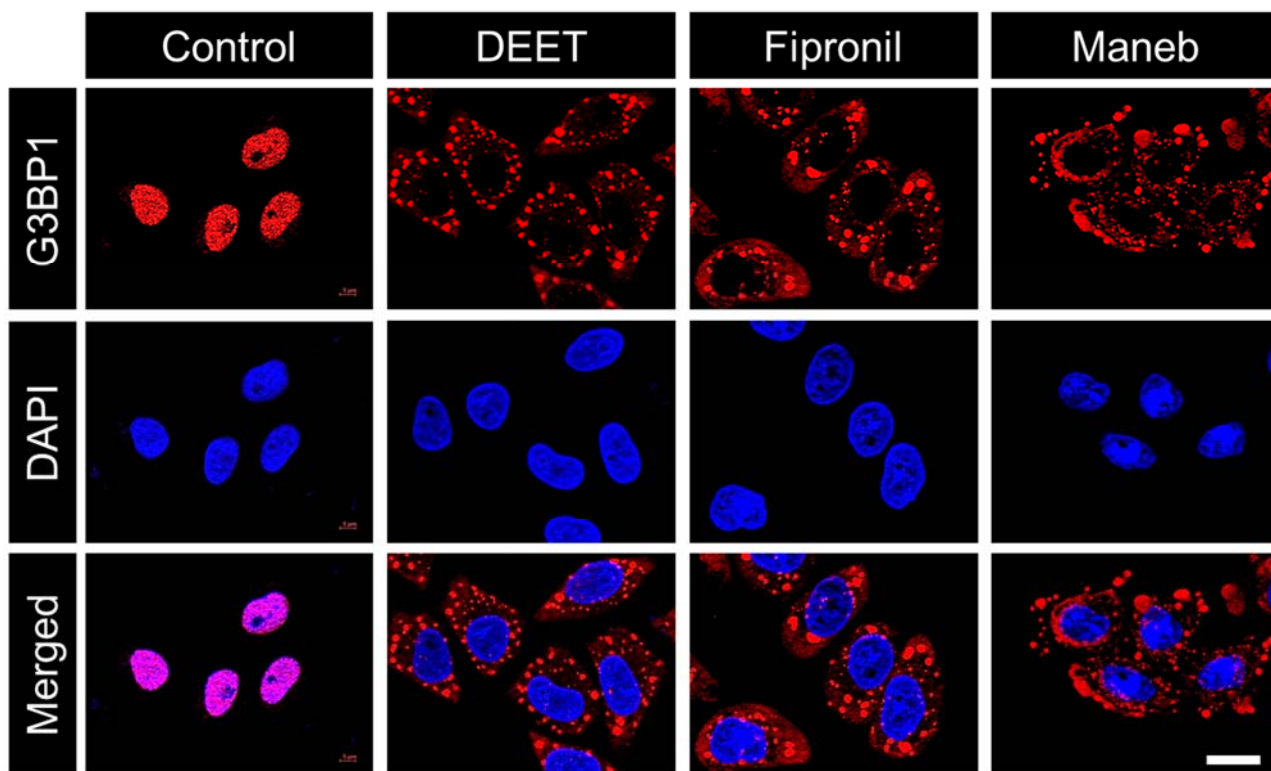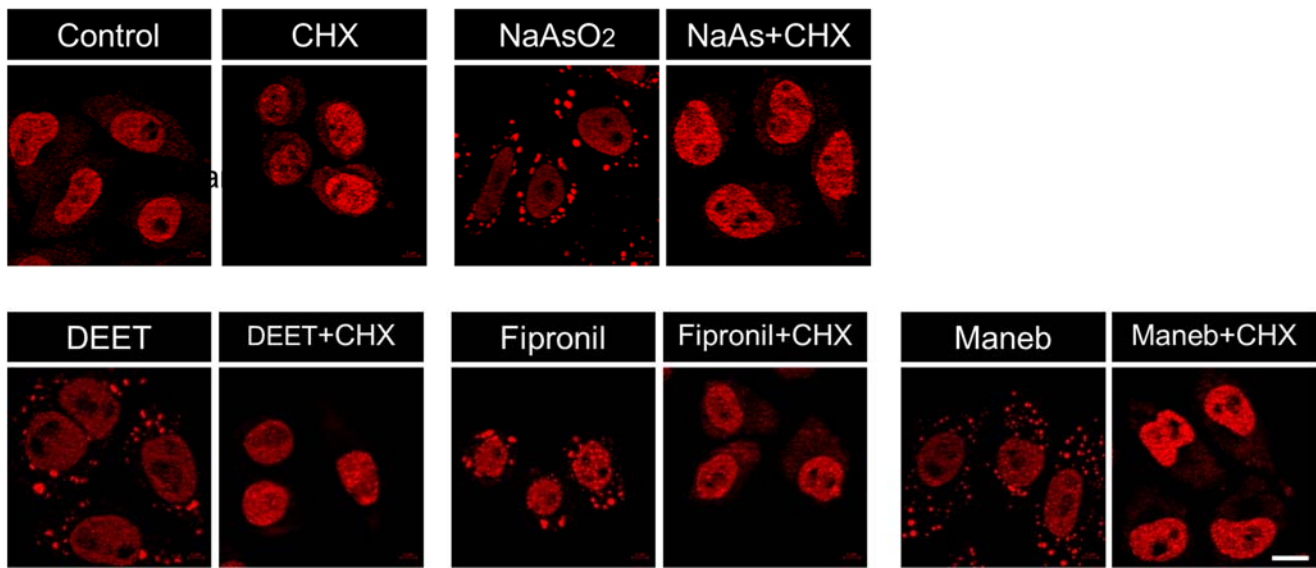**Supplementary Fig. S1:**

Bar diagram showing cell survival as measured by the MTT assay. The survival rate of vehicle treated Neuro2A cells was considered as 100% and the survival of other sets (treated with one of three pesticides on indicated concentration) were compared. Data shown are mean±s.d. (N=3). *$P<0.05$, **$P<0.01$ (two-tailed, unpaired Student's t-test).
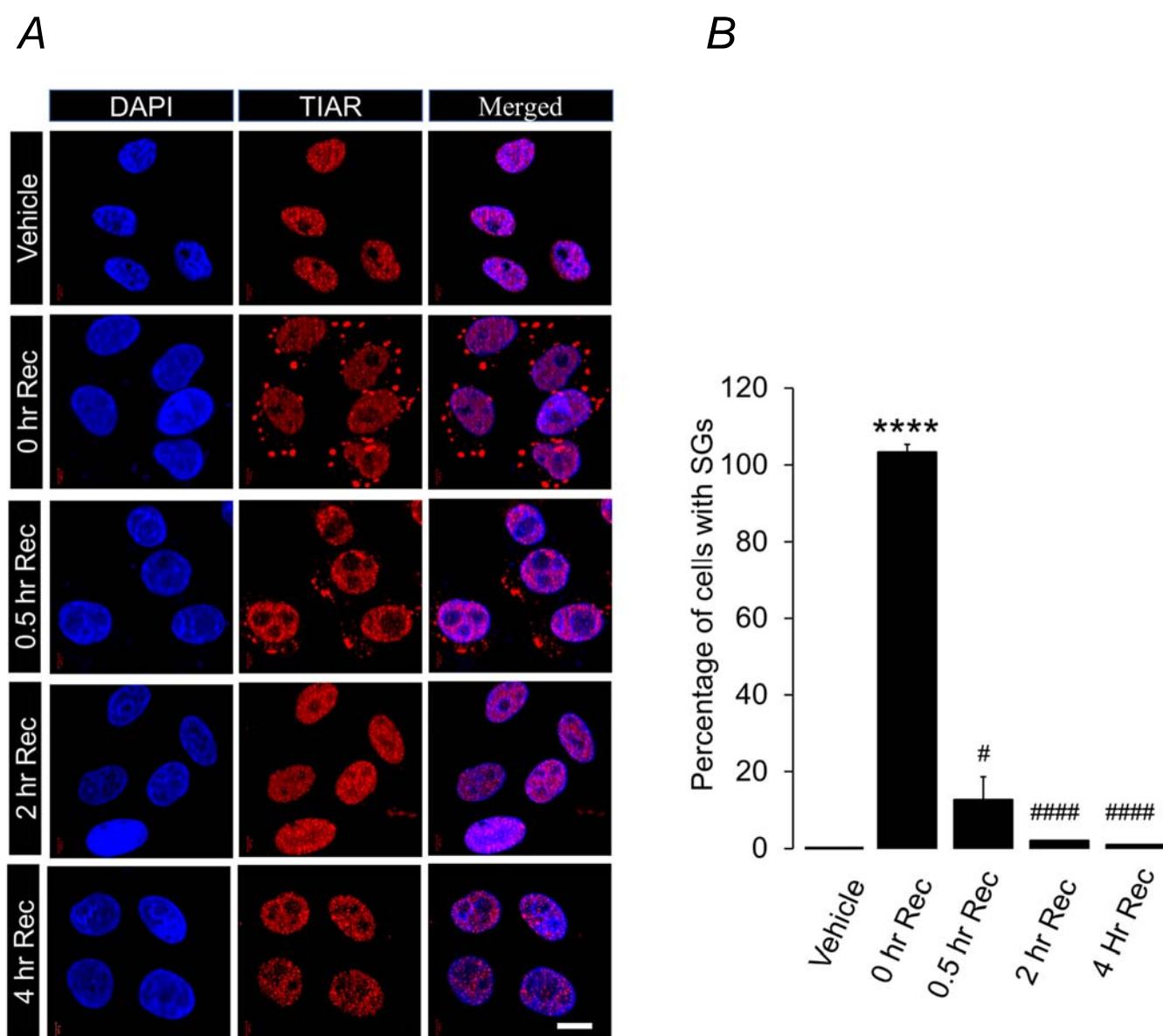
Supplementary Fig. S2:

Representative confocal immunofluorescence images showing G3BP1-positive stress granules in Neuro2A cells treated with the pesticides as indicted. Nuclei were labeled with DAPI. Scale bar: 10 μm.
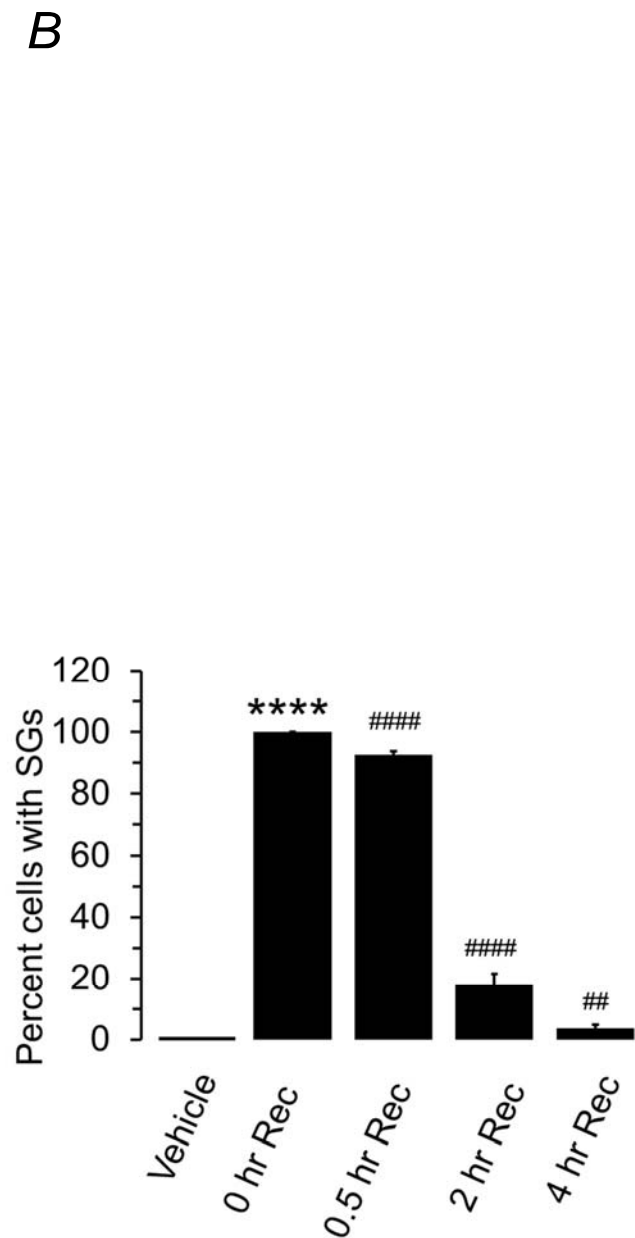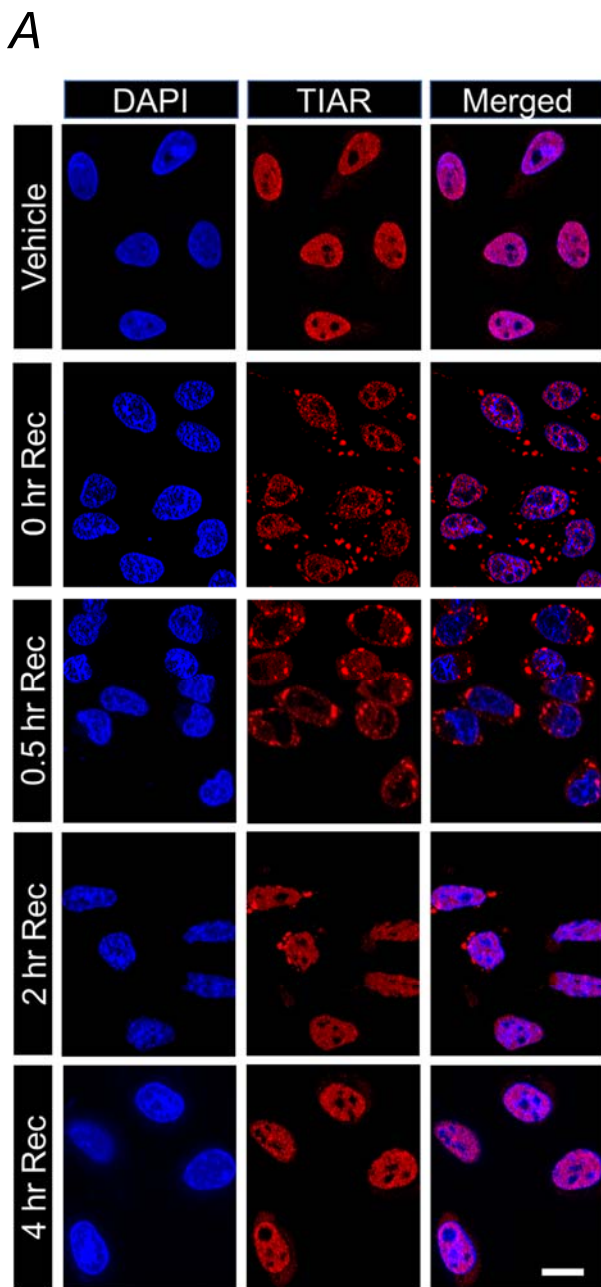
Supplementary Fig. S3:

Representative confocal immunofluorescence images showing the presence of TIAR-positive SGs in Neuro2A cells either treated only with the SG-inducing chemicals (sodium arsenite, DEET, fipronil or maneb) or when treated along with cycloheximide (CHX), as indicated. Note the absence of SGs in the cells double treated with CHX. Scale bar: 10 µm.
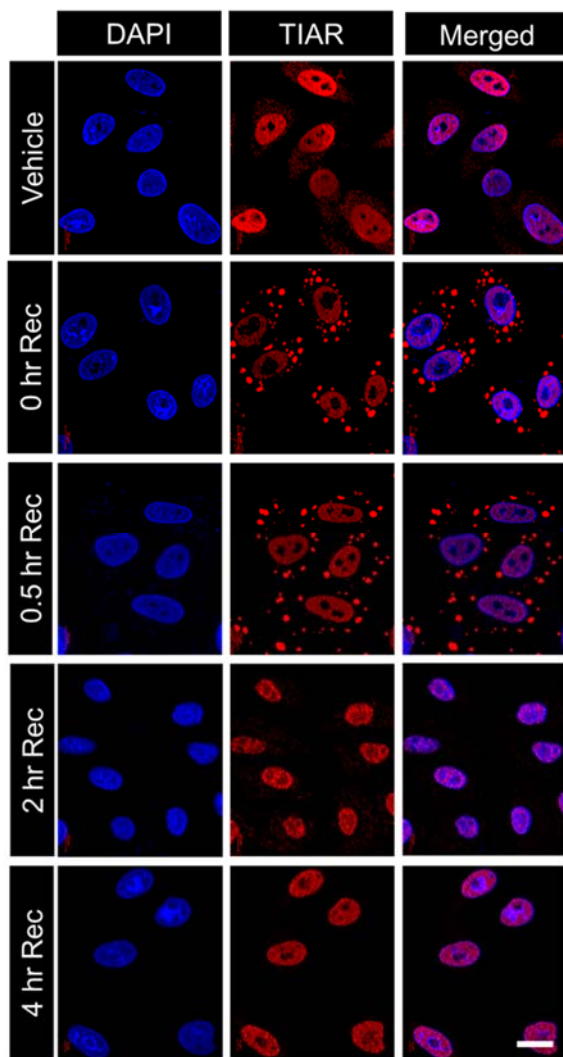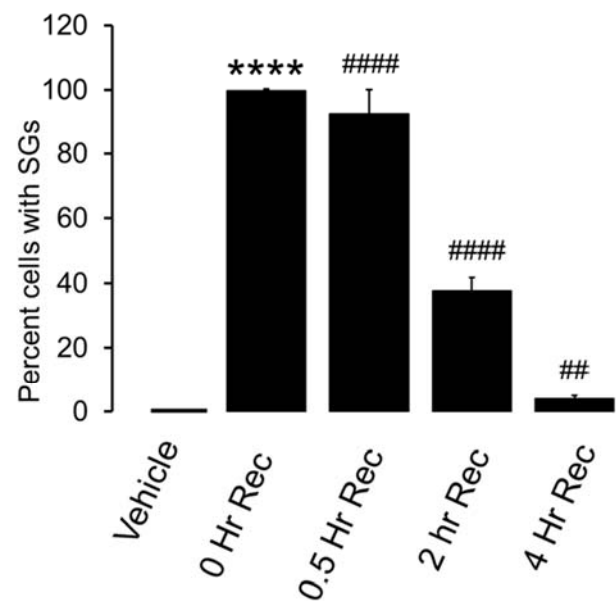
Supplementary Fig. S4:

Reversible induction of SGs by DEET: (A) Representative confocal immunofluorescence images showing the presence of TIAR-positive SGs in Neuro2A cells at various stages of recovery (Rec; cells restored to normal medium), i.e., 0, 0.5, 2 and 4 hours post-treatment. Sale, 10 μm. (B) Bar diagram showing per cent cells with SGs during the recovery phase as indicated. Asterisk (*) indicate a significant difference as compared to the vehicle-treated set and hashtag (#) indicate the difference as compared to the 0-hour recovery set. Data shown are mean±s.d. (N=3). #P<0.05, ****/####P<0.0001 (two-tailed, unpaired Student's t-test).

Supplementary Fig. S5:

Reversible induction of SGs by fipronil: (A) Representative confocal immunofluorescence images showing the presence of TIAR-positive SGs in Neuro2A cells at various stages of recovery (Rec; cells restored to normal medium), i.e., 0, 0.5, 2 and 4 hours post-treatment. Sale, 10 μm. (B) Bar diagram showing per cent cells with SGs during the recovery phase as indicated. Asterisk (*) indicate a significant difference as compared to the vehicle-treated set and hashtag (#) indicate the difference as compared to the 0-hour recovery set. Data shown are mean±s.d. (N=3). ##P<0.01, ****/####P<0.0001 (two-tailed, unpaired Student's t-test).

Supplementary Fig. S6:

Reversible induction of SGs by maneb: (A) Representative confocal immunofluorescence images showing the presence of TIAR-positive SGs in Neuro2A cells at various stages of recovery (Rec; cells restored to normal medium), i.e., 0, 0.5, 2 and 4 hours post-treatment. Sale, 10 μm. (B) Bar diagram showing per cent cells with SGs during the recovery phase as indicated. Asterisk (*) indicate a significant difference as compared to the vehicle-treated set and hashtag (#) indicate the difference as compared to the 0-hour recovery set. Data shown are mean±s.d. (N=3). ##P<0.01, ****/####P<0.0001 (two-tailed, unpaired Student's t-test).