Title: (Z)3,4,5,4'-trans-tetramethoxystilbene, a new analogue of resveratrol, inhibits gefitinb-resistant non-small cell lung cancer via selectively elevating intracellular calcium level

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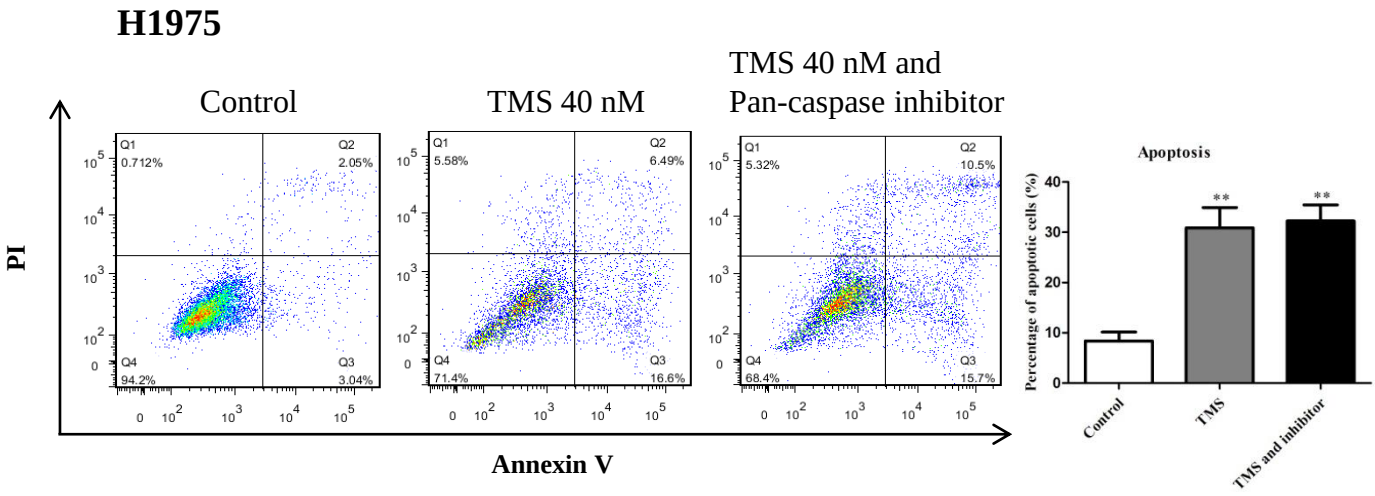
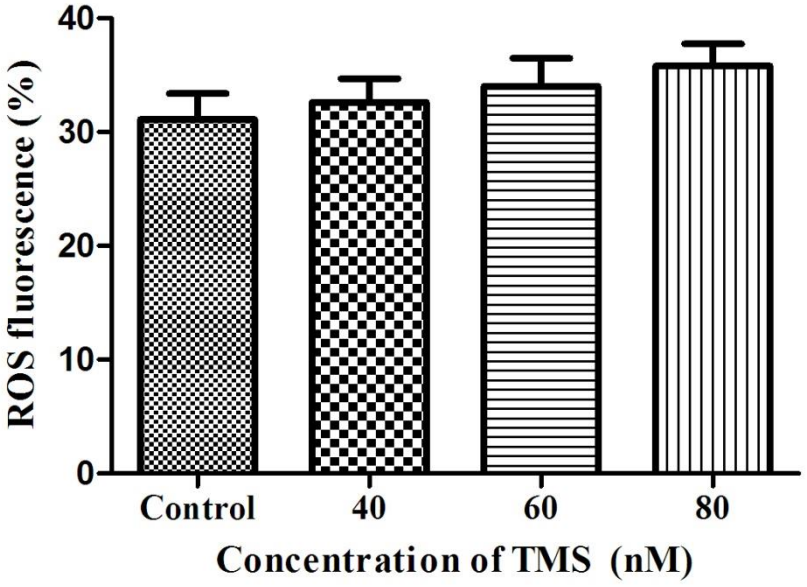
Supplementary figure 1



Supplementary Figure 1. Pan-caspase inhibitor failed to block the apoptotic effect on H1975 induced by TMS.

Supplementary figure 2

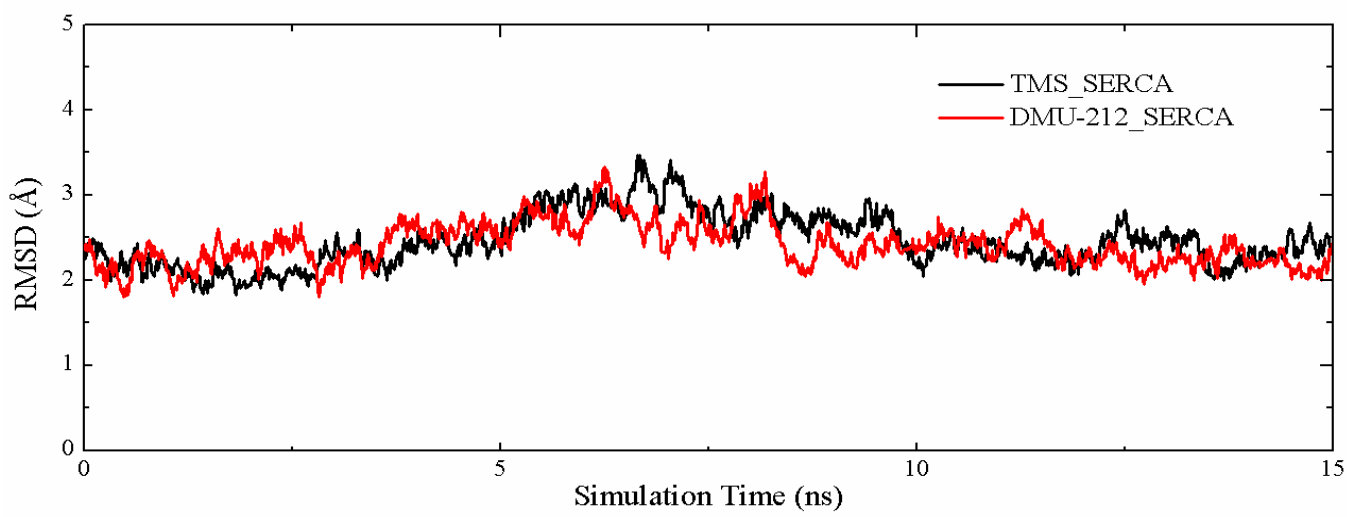


Supplementary Figure 2. TMS didn’t significantly increase the generation of ROS in H1975.

Supplementary figure 3

a

Root mean square deviations (RMSD) of heavy atoms in backbone of SERCA during Molecular Dynamic simulations.



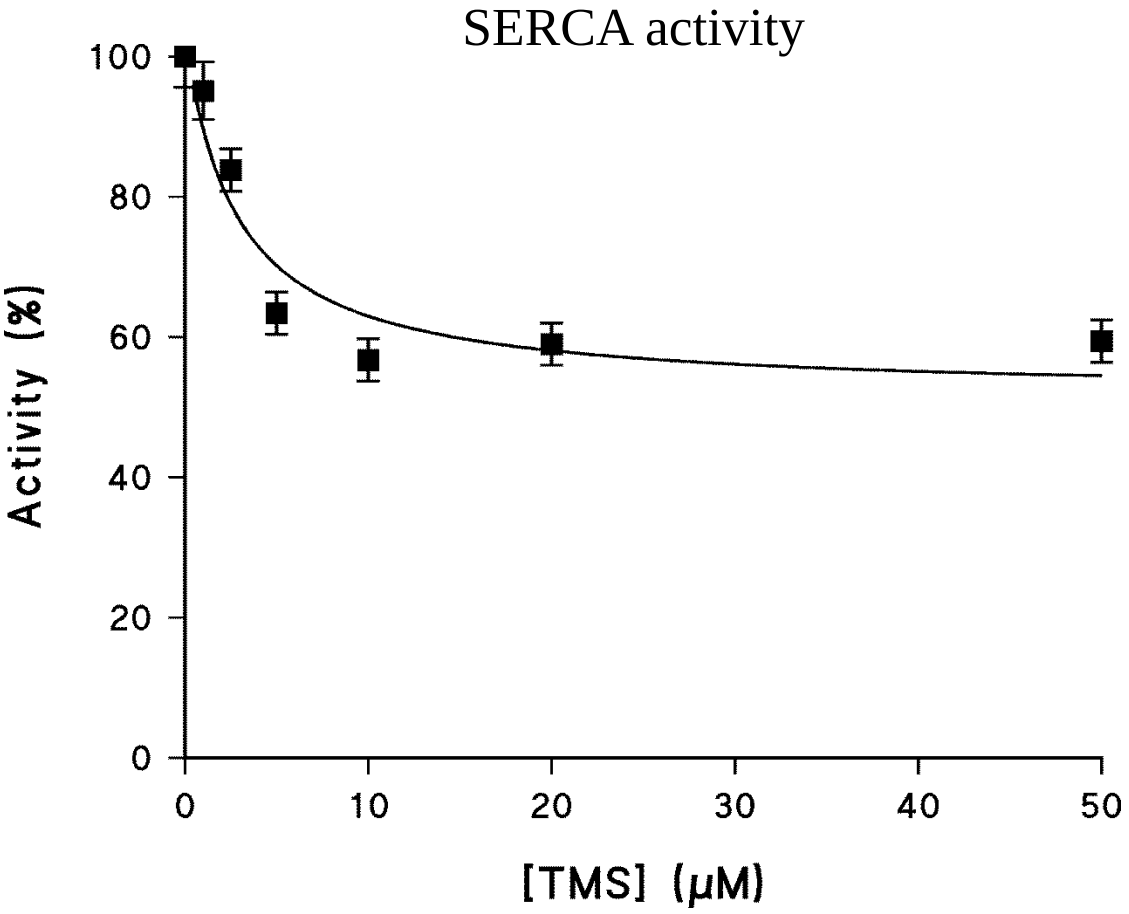
b

The calculated binding free energies of TMS and DMU-212 to SERCA (All energies are in kcal/mol)

Drugs	ΔE_{ele}	ΔE_{vdw}	ΔG_{pol}	ΔG_{nonpol}	ΔG_{MMGBSA}
TMS	-4.04 ± 0.06	-40.27 ± 0.11	10.27 ± 0.06	-5.37 ± 0.02	-39.41 ± 0.12
DMU-212	-5.78 ± 0.11	-38.77 ± 0.10	11.92 ± 0.10	-5.57 ± 0.01	-38.21 ± 0.11

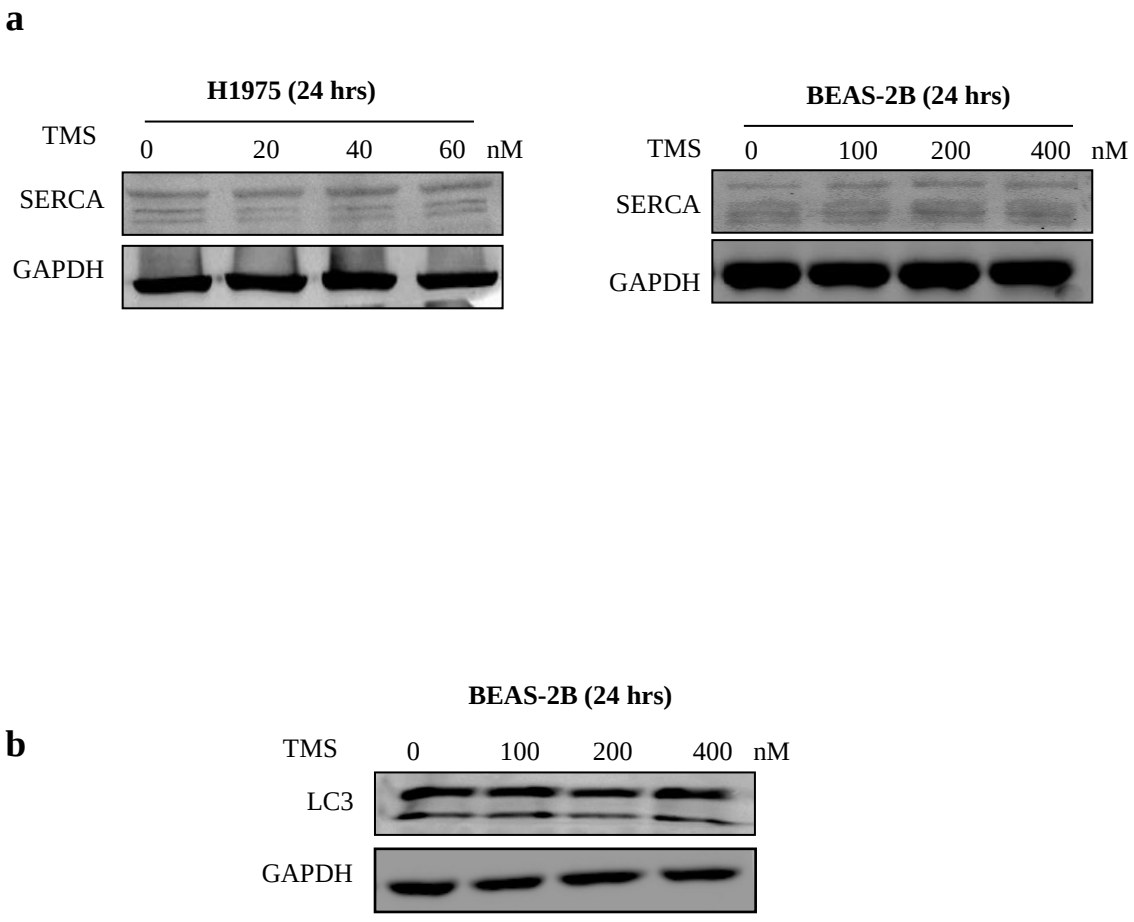
Supplementary Figure 3. Molecular dynamic simulation analysis the interaction of TMS and DMU-212 with SERCA. (a) Root mean square deviations (RMSD) of heavy atoms in backbone of SERCA during molecular dynamic stimulation. (b) The calculated binding free energies of TMS and DMU-212 to SERCA (All energies are in kcal/mol).

Supplementary figure 4



Supplementary Figure 4. TMS inhibited the enzyme activity of SERCA.

Supplementary figure 5



Supplementary Figure 5. TMS has no effect on SERCA expression and autophagy in normal BEAS-2B cell. (a) TMS didn't alter the expression of SERCA in both normal BEAS-2B cell and NSCLC H1975 cell. (b) TMS didn't induce autophagy in BEAS-2B. LC3-II remained the same after TMS treatment.