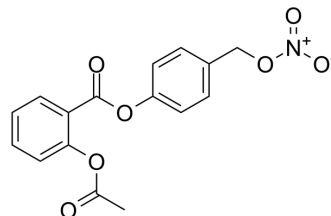


## NCX4040

<b>Cat. No.:</b>	HY-103385
<b>CAS No.:</b>	287118-97-2
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>13</sub> NO <sub>7</sub>
<b>Molecular Weight:</b>	331.28
<b>Target:</b>	Apoptosis
<b>Pathway:</b>	Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	NCX4040 (NO-Aspirin), a non-steroidal anti-inflammatory drug (NSAID), is a nitric oxide (NO) releasing form of Aspirin. NCX4040 induces apoptosis in PC3 metastatic prostate cancer cells. NCX4040 has anti-inflammatory and anti-cancer effects [1].
<b>In Vitro</b>	NCX4040 significantly induces hydrogen peroxide formation with ensuing oxidative stress and mitochondrial depolarization resulting in lipid peroxidation, cell cycle arrest, inhibition of colony growth and induction of apoptosis in PC3 cells <sup>[1]</sup> . NCX4040 (10-50 μM) inhibits migration potential of PC3 cells by depolymerizing F-actin and promoting anoikis <sup>[1]</sup> . NCX4040 down regulates cyclin D1 expression in PC3 cells. Western blot analysis revealed that significant down regulation of key anti-apoptotic markers such as cellular inhibitor of apoptosis protein-1 (cIAP1), X-linked inhibitor of apoptosis (XIAP), survivin, and Cellular-Myc (c-Myc) <sup>[1]</sup> . NCX4040-treated cells shows upregulation of phospho histone H2AX (pH2AX), cleaved caspase3 and cleaved Poly [ADP-ribose] polymerase 1 (PARP1) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Somaiah Chinnapaka, et al. Nitro aspirin (NCX4040) induces apoptosis in PC3 metastatic prostate cancer cells via hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>)-mediated oxidative stress. Free Radic Biol Med. 2019 Nov 1;143:494-509.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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