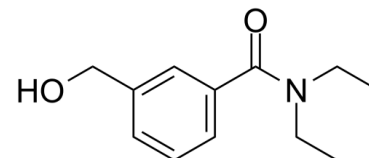


## Data Sheet

<b>Product Name:</b>	$\omega$ -Hydroxy-DEET
<b>Cat. No.:</b>	CS-0132348
<b>CAS No.:</b>	72236-22-7
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>17</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	207.27
<b>Target:</b>	Drug Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Solubility:</b>	10 mM in DMSO



### BIOLOGICAL ACTIVITY:

$\omega$ -Hydroxy-DEET is a major metabolite of insect repellent N,N-diethyl-meta-toluamide (DEET).  $\omega$ -Hydroxy-DEET has anti-proliferative effects. DEET is a spatial repellent and an irritant that commonly used to prevent contact with mosquitoes<sup>[1][2][3]</sup>. **In Vitro:** Hepatoma cell studies reveals that  $\omega$ -Hydroxy-DEET (DHMB; 0.1-10  $\mu$ g/mL; 48-72 hours) treatments decreases cellular proliferation<sup>[1]</sup>. **In Vivo:** The metabolite  $\omega$ -Hydroxy-DEET (DHMB) is extensively distributed following intravenous and topical skin administration of DEET in rats. The  $\omega$ -Hydroxy-DEET appeared to be the major metabolite for DEET. Repeated once-daily topical application for 30 days lead to higher concentrations of  $\omega$ -Hydroxy-DEET in the liver<sup>[1]</sup>.

### References:

- [1]. Daryl J Fediuk, et al. Metabolic disposition of the insect repellent DEET and the sunscreen oxybenzone following intravenous and skin administration in rats. *Int J Toxicol.* Sep-Oct 2012;31(5):467-76.
- [2]. Ryan C Lewis, et al. Urinary biomarkers of exposure to insecticides, herbicides, and one insect repellent among pregnant women in Puerto Rico. *Environ Health.* 2014 Nov 19;13:97.
- [3]. Lu W, et al. DEET as a feeding deterrent. *PLoS One.* 2017 Dec 14;12(12):e0189243.

### CAIndexNames:

Benzamide, N,N-diethyl-3-(hydroxymethyl)-

### SMILES:

O=C(N(CC)CC)C1=CC=CC(CO)=C1

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

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