THC Analogs
Isomers vs. Derivatives

Analog: A compound having a similar structure to another compound; includes both isomers and derivatives.

Isomer: Same number of carbons, hydrogens, and oxygens, but rearranged. For example: Delta-8 vs. Delta-9 vs. Delta-10

Derivative: Looks like Delta-9-THC, but has a different number of carbons, hydrogens, and oxygens. For example: HHC, THC-O, or THC-P

Delta-9-THC

The location of the double bond provides the number for the delta.

THC-O (Derivative)

This functional group can be chemically modified to produce THC-O (also known as THC-O acetate).

Any combination of these changes are possible, producing molecules that look similar to Delta-9-THC with unknown effects and safety. Thousands of THC-like compounds can be formed (e.g., HHC-O, Delta-10-THCH, Delta-8-THCP-O).

Delta-8-THC (Isomer)

If a double bond is NOT present in this area, this compound is called hexahydrocannabinol (HHC).

HHC (Derivative)