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# Carbon C-13 Dextromethorphan

National Cancer Institute

## Source

National Cancer Institute. *Carbon C-13 Dextromethorphan*. NCI Thesaurus. Code C95199.

A radioconjugate consisting of dextromethorphan, a synthetic, methylated dextrorotatory analogue of levorphanol, conjugated with carbon-13 [(13)C] with radiotracer activity. (13)C-dextromethorphan can be used in a breath-test phenotype assay of CYP2D6 activity, based on the principle that CYP2D6-mediated O-demethylation cleaves a (13)CH<sub>3</sub> that enters the body's carbon pool to be eliminated ultimately as (13)CO<sub>2</sub> in expired air, which can be measured. The (13)C-dextromethorphan breath test may prove useful in identifying poor CYP2D6 metabolizers of such important clinical drugs as tamoxifen.