

Product Information

Doxorubicin/Iodoacetamide PEG reagent, *N*-(Iodoacetamido)-doxorubicin, Purity 95%

Cat. No.: X24-03-YW0625

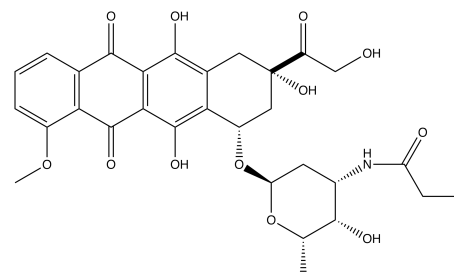
Size: 25 mg; 50 mg; 100 mg

CAS Number: 114390-30-6

PubChem CID: 129737886

Synonym: 114390-30-6; *N*-(Iodoacetamido)-Doxorubicin; *N*-iodoacetyl Adriamycin

This product is for research use only and is not intended for diagnostic use.



Product Information

Description	<i>N</i> -(Iodoacetamido)-doxorubicin is a modified doxorubicin derivative featuring an iodoacetamido moiety. This reactive iodoacetamido group enables covalent conjugation with thiol and amine groups, while the doxorubicin core retains its potent anthracycline-based antineoplastic activity, commonly used in cancer research.
Molecular Weight	711.5
Molecular Formula	C ₂₉ H ₃₀ INO ₁₂
Functional Group 1	Doxorubicin
Functional Group 2	Iodoacetamide
Reactive Group 1	Amine
Reactive Group 2	Thiol
IUPAC Name	<i>N</i> -[(2 <i>S</i> ,3 <i>S</i> ,4 <i>S</i> ,6 <i>R</i>)-3-hydroxy-2-methyl-6-[[[(1 <i>S</i> ,3 <i>S</i>)-3,5,12-trihydroxy-3-(2-hydroxyacetyl)-10-methoxy-6,11-dioxo-2,4-dihydro-1 <i>H</i> -tetracen-1-yl]oxy]oxan-4-yl]-2-iodoacetamide
InChI	InChI=1S/C29H30INO12/c1-11-24(35)14(31-18(34)9-30)6-19(42-11)43-16-8-29(40,17(33)10-32)7-13-21(16)28(39)23-22(26(13)37)25(36)12-4-3-5-15(41-2)20(12)27(23)38/h3-5,11,14,16,19,24,32,35,37,39-40H,6-10H2,1-2H3,(H,31,34)/t11-,14-,16-,19-,24+,29-/m0/s1
InChI Key	SAGBOHNSGVDWII-MUTSDZRXSA-N
Canonical SMILES	C[C@H]1[C@H]([C@H]([C@H](O1)O[C@H]2C[C@@](CC3=C2C(=C4C(=C3O)C(=O)C5=C(C4=O)C(=CC=C5)OC)O)(C(=O)CO)O)NC(=O)CI)O
Form	Solid
Purity	95%
Solubility	DMSO, DMF

Identity	Confirmed by NMR.
Applications	<i>N</i> -(Iodoacetamido)-doxorubicin is employed in targeted drug delivery, antibody-drug conjugates (ADCs), and cancer research. Its iodoacetamido group allows for site-specific conjugation with biomolecules, enhancing targeted therapeutic applications and facilitating the development of novel chemotherapeutic agents.
Storage	Store at -20°C.