Product Specifications

Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2′-5′ linked Oligos

Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

DCA (C22) LMO

Category	Antisense
Modification Code	3-DCA-C22
Reference Catalog Number	26-6627
5 Prime	N
3 Prime	Y
Internal	N
Molecular Weight(mw)	517

Click here for a list Cellular Delivery Modifications.
Click here for more information on siRNA and antisense oligo modifications, design & applications.

Docosanoic-DCA (C22) Lipid Modified Oligo (LMO) Delivery

DHA (docosahexaenoic acid) and DCA (docosanoic acid) are fatty acids that can be conjugated to siRNA molecules to improve their delivery and efficacy, particularly in extrahepatic tissues. DHA conjugation enhances siRNA distribution in the brain and promotes cellular uptake by neurons and astrocytes. DCA conjugation facilitates efficient and sustainable gene silencing in skeletal and cardiac muscles after systemic injection. Nikan, M., Osborn, M.F., Coles, A.H., Godinho, B.M., Hall, L.M., Haraszti, R.A., Hassler, M.R., Echeverria, D., Aronin, N., and Khvorova, A. (2016). Docosahexaenoic acid conjugation enhances distribution and safety of siRNA upon local administration in mouse brain. Mol. Ther. Nucleic Acids 5, e344. Biscans,A., Caiazzi, J., McHugh, N., Hariharan, V., Muhuri, M., and Anastasia Khvorova (2020) Docosanoic acid conjugation to siRNA enables functional and safe delivery to skeletal and cardiac muscles. Mol. Ther. 29:4