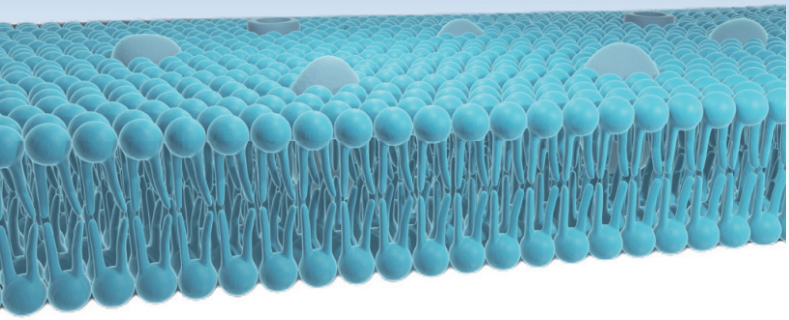
BRINGING INNATE IMMUNITY TO LIFE



innaxon

Collaborating with

AdipoGen® LIFE SCIENCES

Lipodisq™ Technology

Compounds powered by

Lipodisq™

Lipodisq™ are novel lipid/polymer nanoparticles that have been developed as mimics of naturally-occurring high-density lipoproteins (HDL). Lipodisq™ particles are in the size range of 11 to 40 nm in diameter enabling enhanced penetration and diffusion into membranes. **These nanodisc lipid particles are composed of a hydrophilic shell and hydrophobic core in which hydrophobic active agents can be carried and protected.**

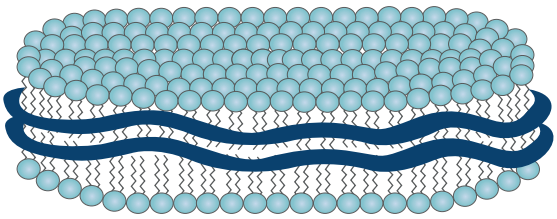


FIGURE: Nanoparticle (11- 40 nm) drug delivery system comprising a discoidal phospholipid bilayer membrane stabilized by an annular chaperone molecule.

The size and shape of the chaperone molecule is a critical factor in Lipodisq™ formation and also defines the properties of the particle, i.e. particle size and/or its biodegradability. Internal properties of the phospholipid membrane support the disposition and stabilization of drug molecule candidates and preserve the native conformation of membrane-bound molecules. The resulting encapsulated actives are rendered water-soluble and optimized for intracellular penetration/ delivery via endosomal uptake mechanisms.

LITERATURE REFERENCES

Responsive Hydrophobically Associating Polymers: A Review of Structure and Properties: S.R. Tonge & B.J. Tighe; Adv. Drug Deliv. Rev. **53,** 109 (2001) • Detergent-free formation and physicochemical characterization of nanosized lipidpolymer complexes: Lipodisq; M.C. Orwick, et al.; Angew. Chem. **51,** 4653 (2012) • The styrene–maleic acid copolymer: a versatile tool in membrane research: J.M. Doerr, et al.; Eur. Biophys. J. **45,** 3 (2016) • Effects of charged lipids on the physicochemical and biological properties of lipid–styrene maleic acid copolymer discoidal particles: M. Tanaka, et al.; Biochim. Biophys. Acta. Biomembr. **1862,** 183209 (2020) • Physicochemical Characterization, Toxicity and In Vivo Biodistribution Studies of a Discoidal, Lipid-Based Drug Delivery Vehicle: Lipodisq Nanoparticles Containing Doxorubicin: M.L. Torgersen, et al.; J. Biomed. Nanotechnol. **16,** 41 (2020)

Not for cosmetic, diagnostic or therapeutic human or veterinary use!

Ready-to-use Nano-formulated Clear and Sterile Aqueous Solutions of Active Compounds

Lipodisq™ Control

Curcumin *powered by* Lipodisq™

Melatonin *powered by* Lipodisq™

For more Products see Backcover

Compounds *powered by* Lipodisq™ Features

- Actives in Lipodisq™ are biosynthetic water-soluble nanodiscs prepared under SOPs using selected optimized lipid compositions for stable, high-loading capacity of encapsulated active ingredients.
- Actives in Lipodisq™ are detergent-free nano-formulations made of styrene-maleic acid copolymer-lipid particles (SMALP).
- Actives in Lipodisq™ retain the biological activity of the active compound with enhanced bioavailability.
- Lipodisq™ solutions show a good safety profile and are suitable for *in vitro* and *in vivo* investigations.

SPECIAL Features of Innaxon Compounds powered by Lipodisq™

- >10^{11} particles per ml as determined by Dynamic Light Scattering (DLS).
- Tested in cell culture (human macrophage cell line as tested by MTT viability test).
- Formulations are soluble in water, PBS, Tris and other physiological solutions as formulated in a proprietary, thermostable, aqueous lipid nanoparticulate formulation.
- Formulations are certified sterile solutions with a physiological pH range.

Selection of Antiviral and Immunomodulating Compounds powered by Lipodisq™: NEW Ready-to-use Nano-formulated Aqueous Solutions (1 mg/ml)

Lipodisq™ Control Sterile Solution
IAX-700-100 ***(contains empty lipid nanoparticles)*** 1 ml

Curcumin (high purity) *powered by* Lipodisq™ Sterile Solution
IAX-700-101 1 ml

Melatonin *powered by* Lipodisq™ Sterile Solution
IAX-700-102 1 ml

Metformin *powered by* Lipodisq™ Sterile Solution
IAX-700-103 1 ml

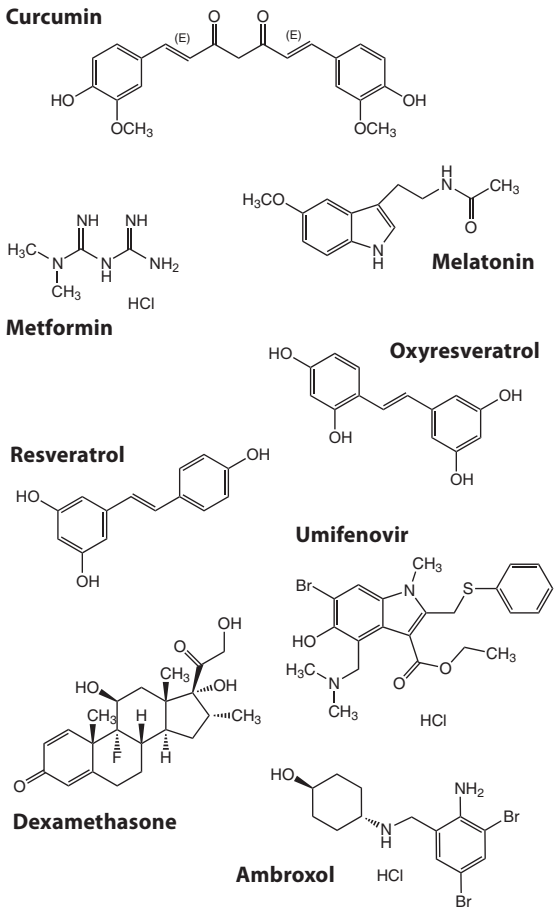
Oxyresveratrol *powered by* Lipodisq™ Sterile Solution
IAX-700-104 1 ml

Resveratrol *powered by* Lipodisq™ Sterile Solution
IAX-700-105 1 ml

Umifenovir *powered by* Lipodisq™ Sterile Solution
IAX-700-106 1 ml

Dexamethasone *powered by* Lipodisq™ Sterile Solution
IAX-700-107 1 ml

Ambroxol *powered by* Lipodisq™ Sterile Solution
IAX-700-108 1 ml



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