

LIPID NANOPARTICLES WITH NON-IMMUNOGENIC POLY (ETHYLENE GLYCOL)

Tech ID: 33303 / UC Case 2024-021-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Poly (ethylene glycol) (PEG) is a widely used polymer in a variety of consumer products and in medicine. PEG is viewed as being well-tolerated, but previous studies have identified anti-PEG antibodies and pseudoallergic reactions in certain individuals. The increased use of lipid nanoparticles (LNPs) as contrast agents or in drug delivery, along with the introduction of mRNA vaccines encapsulated in PEGylated lipid nanoparticles is a concern.

UC Berkeley researchers have created Lipid nanoparticles with new polymers that do not generate PEG antibodies. Cell and animal work demonstrate that these new polymers deliver mRNA efficiently in vitro and in vivo.

SUGGESTED USES

- » manufacture of LNPs
- » drug delivery

ADVANTAGES

- » LNPs that do not generate PEG antibodies

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INVENTORS

- » Murthy, Niren

OTHER INFORMATION

CATEGORIZED AS

- » **Medical**
- » Delivery Systems
- » Research Tools
- » Therapeutics
- » Vaccines

RELATED CASES

2024-021-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ Small Molecule Endosomal Disruptor for Biotherapeutic Delivery
- ▶ Compositions and Methods for Identifying Functional Nucleic Acid Delivery Vehicles
- ▶ Aromatic 2-nitrosulfonyl fluoride antibiotics
- ▶ New Acid Degradable Lipids Based On Self Assembling Peptides
- ▶ Acid Degradable Solid Lipid Nanoparticles
- ▶ Synthesis Of New Cationic And Ionizable Lipid Nanoparticles (LNPs) via Solid Phase Peptide Synthesis