

# PRODUCT INFORMATION



## CoPoP Liposomes

Item No. 38771

### Overview and Properties

<b>Contents:</b>	This vial contains 250 µg of CoPoP embedded into 2 mg of liposomes
<b>Synonym:</b>	Cobalt Porphyrin-Phospholipid Liposomes
<b>Form:</b>	Solid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	TBS, pH 7.4, with 1% sucrose and 0.1% mannitol when resuspended in 1 ml of water
<b>Applications:</b>	Carrier protein-free immunization of His-tagged proteins and peptides. CoPoP liposomes are suitable for loading 50 µg of His-tagged antigen per mg of liposomes.
<b>Special Conditions:</b>	Store at 4°C for six months post resuspension

### Description

Cobalt porphyrin-phospholipid (CoPoP) liposomes are liposomes with cobalt-bound porphyrin- and palmitic acid-containing phosphatidylcholine embedded in the lipid bilayer. They can be used to capture His-tagged proteins and peptides *via* His tag binding to the cobalt of the porphyrin moiety in the lipid bilayer and can be used as immunization systems in animals. CoPoP liposomes have advantages over standard immunization systems in that they do not require a carrier protein to increase immunogenicity of short peptide antigens. In addition, peptide-CoPoP complexes are stable in biological media due to the His tag of the antigenic peptide being embedded within the hydrophobic lipid bilayer of the liposome.

CoPoP liposomes with a captured His-tagged cyclic RGD peptide, which binds  $\alpha V\beta 3$  integrin, and encapsulating sulforhodamine B (Item No. 31539) selectively localize to subcutaneous tumors in a U87 mouse xenograft model.<sup>1</sup> CoPoP liposomes with a captured His-tagged HIV gp41-derived membrane-proximal external region (MPER) peptide as an antigen and encapsulating the toll-like receptor 4 (TLR4) agonist monophosphoryl lipid A (MPL) induce anti-MPL IgG titers in mice and maintain titers at higher levels than similarly loaded nickel-nitrilotriacetic acid (Ni-NTA) liposomes with a captured MPER peptide.

### Reference

1. Shao, S., Geng, J., Ah Yi, H., *et al.* Functionalization of cobalt porphyrin-phospholipid bilayers with his-tagged ligands and antigens. *Nat. Chem.* **7**(5), 438-446 (2015).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY  
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