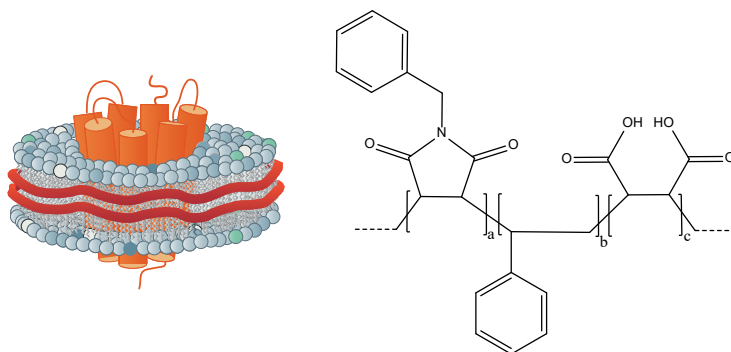


SMALP BZ30



Product	Catalog No.	Package size
SMALP BZ30 (10 x 50 mg)	18621	10 x 50 mg
SMALP BZ30 (1 g)	18622	1 g
SMALP BZ30 (10 x 1 g)	18623	10 x 1g
SMALP BZ30 (50 g)	18624	50 g



Product Description

The use of poly(styrene-co-maleic acid-co-30%(N-benzyl)maleimide) copolymer (BZ30-SMA) for stabilization of membrane proteins can provide bicelles with membrane proteins from native membranes in the absence of detergents. This is achieved by wrapping around a patch of a lipid bilayer to form a disc-like particle or nanodisc. The SMALP BZ30-based products contain the copolymer and a 50 mM HEPES buffer, adjusted to pH 7.5, so only dd water has to be added for direct application. The pH value has been selected to be very effective for protein solubilization.

Cube Biotech's SMALP BZ30 is a highly purified electroneutral copolymer, with a molecular weight (Mw) of ~5.500. After dissolving the lyophilized copolymer powder with membrane protein-containing buffer, the concentration should range from 1.0 to 5.0%. Copolymers provide a hydrophobic surface facing the lipids and a hydrophilic surface on the outside. This setup makes nanodiscs highly soluble in aqueous solutions and allows the solubilization of membrane proteins in the absence of detergents. This product can be used with phospholipids, such as dimyristoyl-glycero-phosphocholine (DMPC) or palmitoyl-oleoyl-phosphatidyl-choline (POPC) in combination with sodium cholate.

The complex from SMALP BZ30 and membrane protein can be used in many biophysical assays, such as SDS-PAGE, SEC, Western Blot, UV/Vis spectroscopy, and many chromatographic procedures.

Reconstitution of the copolymer solution:

SMALP BZ30 copolymers are delivered as a lyophilized solution containing 50 mM HEPES, pH 7.5. Each aliquot contains 50 mg of polymer, 1 g, 10 g or 50 g respectively. Adding 0.5 ml double distilled water per 50 mg of polymer will restore the original solution with a copolymer concentration of 10%. This stock can be diluted further as required by different application protocols.

Technical Details

Name	Poly(styrene-co-maleic acid-co-30%(N-benzyl)maleimide) copolymer, sodium salt in 50 mM HEPES, pH 7.5
Solubility	>10% (H ₂ O)
Color	White to slightly yellow
Odor	Odorless
pH (dissolved)	7.5 ± 0.3

Shipping & Storage

Shipping Temperature	2-8 °C
Storage of lyophilized copolymer	-20°C for several years
Storage of dissolved copolymer	2-8°C for several days

Additional Information

For SMALP BZ30 protocols, please visit our webpage at: www.cube-biotech.com/products. Cube Biotech also offers MSP nanodisc products and other nanodisc polymers such as Amphipol, styrene maleic copolymer (SMA), Diisobutylene-maleic acid (DIBMA), and Poly(acrylic acid-co-styrene (AASTY).

Disclaimer**Patent Pending**

The purchaser is licensed under those patents to use the SMALP BZ30; for the manufacture of lipid particles and to use SMALP BZ30 so manufactured for the purpose of research and development of proteins, including their production (including purification and solubilization), screening, testing, analysis, characterization (including structural analysis and characterization), including for the purpose of drug screening, but not for the purpose of delivery of agents to humans or other animals for therapeutic, diagnostic, prophylactic purposes, which uses are specifically prohibited.