Product Datasheet

Anti-EPCAM/CD3 bispecific mRNA-LNP (orb2719985)

Catalog Number	orb2719985
Category	Antibodies
Description	EpCAM (epithelial cell adhesion molecule, or CD326) is a transmembrane glycoprotein that mediates Ca2+-independent homotypic cell-cell adhesion in epithelial cells. EpCAM is overexpressed in many cancers and is also expressed in cancer stem cells, making EpCAM an attractive target for immunotherapy. EpCAM is expressed on the basolateral membrane of all epithelial cells, except normal squamous stratified epithelium that is EpCAM negative. EpCAM is cleaved into an extracellular domain (EpEX) and an intracellular domain (EpICD). EpICD forms a complex with other proteins in the nucleus and promotes the transcription of various genes, including the oncogene c-myc. This has been linked to promoting tumor growth. EpEX can stimulate the cleavage of additional EpCAM molecules, creating a positive feedback loop. CD3 (cluster of differentiation 3) is a protein complex that serves as a surface marker found on all T lymphocytes. Anti-EpCAM/CD3 bispecific antibodies provide a tool to identify EpCAM as a therapeutic target. This product is designed as a tool for the delivery and expression of anti-EPCAM/CD3 bsAb mRNA for research. The product leverages the lipid nanoparticle (LNP) technology platform for simple and efficient delivery of anti-EPCAM/CD3 bsAb mRNA to a variety of mammalian cells in vitro and in vivo. The LNPs used are formulated with SM-102, DSPC, cholesterol and DMG-PEG2000 at an optimal molar concentration for a high rate of encapsulation and efficient mRNA delivery. The full-length amino acid sequence of this anti-EPCAM/CD3 bsAb mRNA-LNP product is available upon request.
Conjugation	Unconjugated
Form/Appearance	mRNA-LNPs suspended in PBS (-Ca, -Mg) (pH: 7.0-7.4).

Biorbyt Ltd.
7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom
Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC
68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States
Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

Application notes	Upon receiving product, briefly pulse spin before opening to ensure product is at bottom of container. It is important not to spin for too long as this may rupture mRNA-LNPs. Do not vortex. Work with mRNA-LNPs on ice and minimize the time that the product spends at room temperature. After handling the product during experiments, return immediately to ice. mRNA-LNP products should only be handled with certified RNase-free reagents and consumables. Use of filtered pipette tips is highly recommended.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only

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Biorbyt LLC
68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States
Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558