

Singapore company name: STR Technologies

Domain: STRSG.com

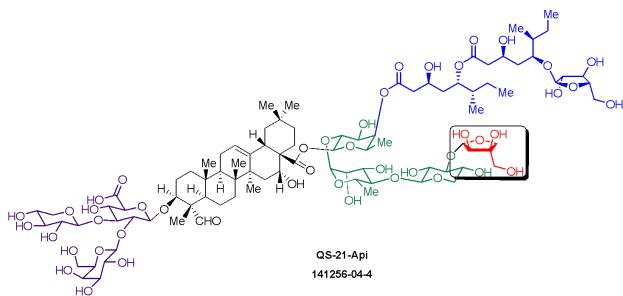
It serves as the international hub for API and adjuvant products from BDyn Bio (China)

Website/shop target audience: biotech research community

A reference site: <https://www.invivogen.com/vaccine-adjuvants>

Introduction to Synthetic Adjuvants from BDSyn Bio

QS-21-Api



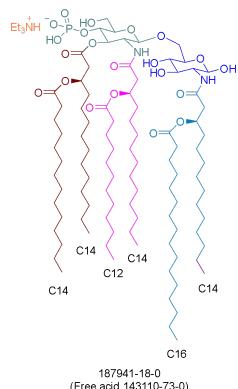
QS-21 is a potent vaccine adjuvant and critical to the success of several important vaccines, including Mosquirix®, Shingrix® and Covovax®. Traditionally derived from native Chilean *Quillaja saponaria* tree bark, QS-21 is a mixture of primarily QS-21-Api and QS-21-Xyl (65:35 ratio), plus other similar saponins.

BDSyn Bio has pioneered a proprietary chemical-synthetic process for QS-21-Api that is highly efficient and scalable, delivering accessibility and security of supply. Synthetic QS-21-Api demonstrates equivalent immunogenicity and reactogenicity profiles to naturally sourced QS-21 in animal models. GMP-grade synthetic QS-21-Api is also now available for order.

We also offer synthetic QS-21-Xyl and other QS-21-like saponins.

- High Purity
- GMP Grade
- Sustainable
- Accessible
- Security of Supply
- Freedom to operate
- A wide range of synthetic saponins is available

HMLA

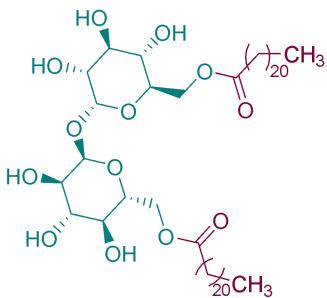


The synergistic effect of a TLR4 agonist, 3-O-desacyl-4'-monophosphoryl lipid A (MPLA) and QS-21 in a liposomal formulation, such as the AS01 adjuvant, induces potent humoral and Th1-type cellular immune responses, which is key to the superior efficacy of vaccines like Shingrix®.

MPLA, derived from *Salmonella* LPS through acid hydrolysis, is heterogeneous with HMLA (Hexa-acyl Monophosphoryl Lipid A) as the dominant and active constituent. BDSyn Bio's synthetic HMLA has the advantages of defined chemical structure, much improved batch-to-batch consistency and process economics. It has been utilised in vaccine development for diseases such as herpes zoster, malaria and tuberculosis.

- High Purity
- GMP Grade
- Sustainable
- Accessible
- Security of Supply
- Freedom to operate
- A wide range of synthetic MPLA is available

TDB



66758-35-8

D-(+)-Trehalose 6,6'-dibehenate (TDB) is a synthetic lipid that has been shown to enhance vaccine immunogenicity when incorporated into cationic liposomes composed of DDA, forming systems like DDA/TDB and CAF01. It promotes robust cell-mediated (Th1/Th17) and antibody responses by stabilising the liposomal structure, improving antigen delivery, and acting as an immunomodulator. Additionally, TDB serves as a cryoprotectant during lyophilisation, ensuring long-term stability and efficacy of the vaccine formulation.

- High Purity
- GMP Grade
- FDADMF 040613
- NMPA F20230000625

Company Introduction

BDSyn Bio specialises in the development and manufacture of advanced vaccine adjuvants. Leveraging proprietary technologies and in-depth expertise, the company offers a diverse range of synthetic, clinically important adjuvants, benefiting from much improved accessibility and security of supply. GMP-grade adjuvants are also now available for vaccine developers.

佐剂原料 Adjuvant Materials		佐剂制剂 Adjuvant Preparates
Saponin series (Single Structure)	Monophosphoryl lipid A (MPLA) series	
QS-21-Api	HMLA	BDS01 (Liposome)
QS-21-Xyl	GLA	BDS02 (Liposome)
QS-7-Api	5-Acy-MPLA derivatives	BDS03 (Emulsion)
QS-7-Xyl	6-Acy-MPLA derivatives	BDS04 (Aluminum-manganese)
QS-17/18-Api	FP20 derivatives	BDS05 (Imiquimod microsphere)
QS-17/18-Xyl	SLA derivatives	BDS06 (Aluminum hydroxide gel)
BDS1856	EcML derivatives	BDS07 (Aluminium phosphate)
TQL-1055	KRN7000	BDS08 (LPP+Adjuvant)

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Slogan?

Synthetic Saponins For More Accessible Vaccines