

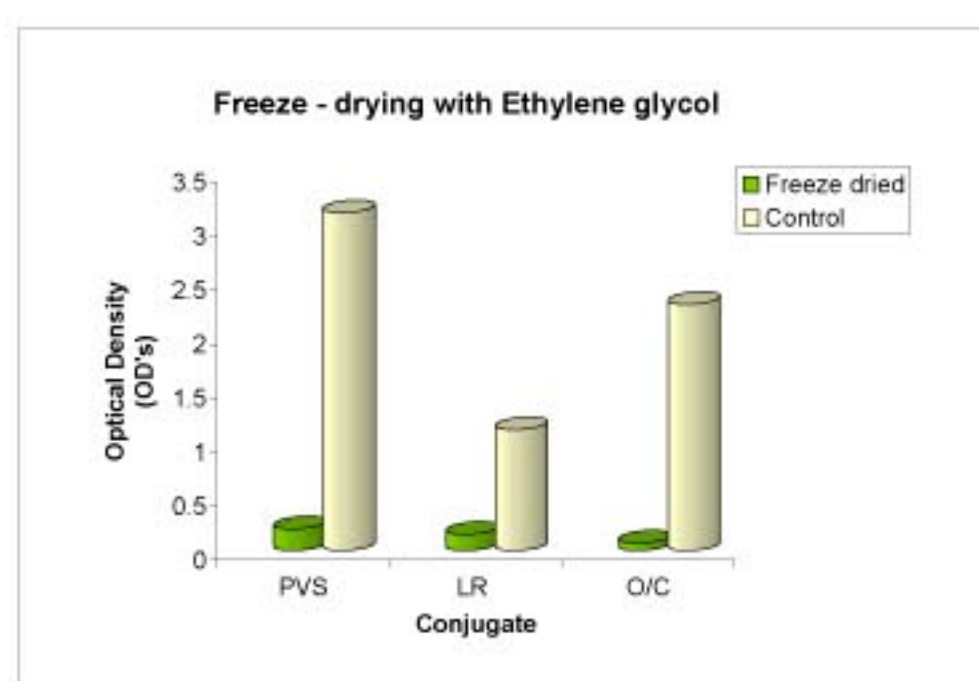
# SASA'S FREEZING

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## Introduction

The SASA antibody unit encountered problems with our exported antibody/enzyme conjugates being held for long periods by customs in South America, causing the activity of the reagents to be reduced. Storage at elevated temperatures often leads to conjugate degradation and loss of activity. Lyophilization (freeze-drying) has been shown to aid the stability of antibodies at high temperatures.

## Ethylene glycol



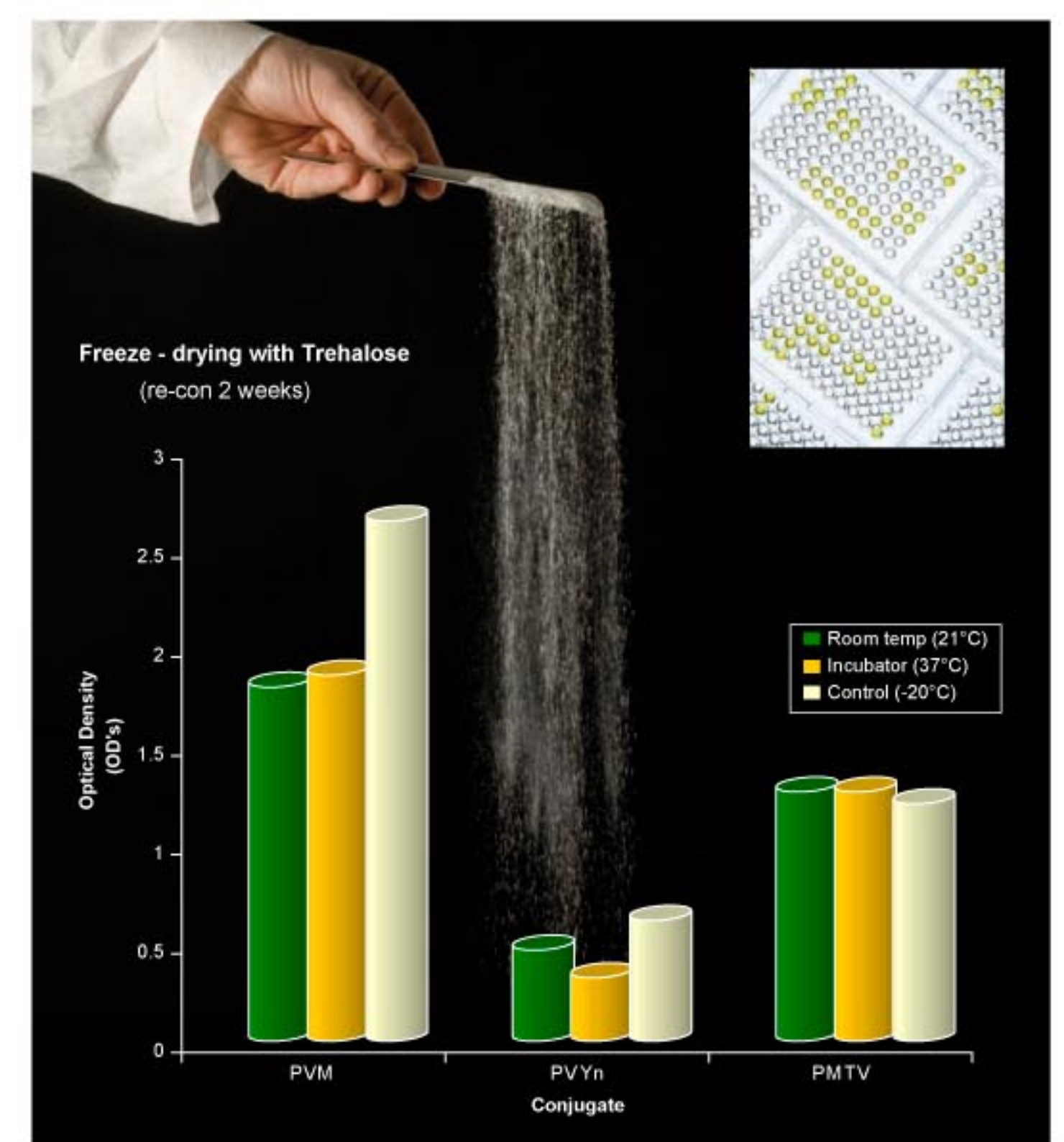
Ethylene glycol is commonly used as a storage component (cryo-protectant) for conjugated antibodies, although this product within our lyophilized reagents caused the inactivation of our conjugated antibodies.

## Sweet little molecule

Trehalose is a disaccharide sugar which occurs naturally and has been shown to stabilise antibody molecules during lyophilization and reconstitution with no loss of activity<sup>(1)</sup>.

### Lyophilized

Antibody conjugates were lyophilized, reconstituted and tested by DAS-ELISA. No loss of activity was shown when compared to replica samples at -20°C.



**SASA's antibody unit now uses trehalose as a storage component in the production of conjugated monoclonal antibodies as standard**

## Evaluation

Our product range has now been evaluated for long term storage using trehalose.



PLRV	PVS
PVX	PMTV
PVA	PVV
PVYo	TRSV
PVYn	PVM
PVYo/c	AVBO
PVYall mix	PVT
RSLV	TBRV

## References

<sup>(1)</sup> Dráber, P., Dráberová, E and NováKová, M. (1995) Stability of monoclonal IgM antibodies freeze-dried in the presence of trehalose. *Journal of immunological methods*. **181** p37-43.



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