Fluorescent Streptavidin Dextrans



L J	REF	Σ Σ	
PE	DXPESTV-25T	25 test	RIO
PE	DXPESTV-100T	100 test	

CONJUGATION WITH BIOTINYLATED PROTEINS

There is no generic titer for all proteins, each one must be titrated to ensure the best results. It is recommended to use monobiotinylated proteins because random biotin conjugation may interfere with target recognition.

To calculate the optimal amount of protein by dextran, the following formula can be used:

$$V_P = \frac{V_{DX} \cdot [DX] \cdot RM}{[P]}$$

 V_P : biotinylated protein volume in μL V_Dx : fluorescent dextran volume in μL [DX]: fluorescent dextran concentration in μM [P]: biotinylated protein concentration in μM MR: molar ratio Protein/Dextran

5.

A first trial of three molar ratios can show where approximately the optimal amount is. It is recommended to try 10, 20 and 30; then, test less difference between ratios. To calculate the volume per test, the following formula can be used:

 $V_T = \frac{V_{DX} + V_P}{\frac{V_{DX}}{2}}$

 $V \ {\tt P}: biotinylated protein volume in \ {\tt \mu L} \\ V \ {\tt Dx}: fluorescent \ dextran \ volume \ in \ {\tt \mu L} \\ V \ {\tt T}: volume \ per \ test \ in \ {\tt \mu L} / Test$



Figure 2. Presentation of protein to its specific receptor using the fluorecent dextran system

6. EXPLANATION OF SYMBOLS

7.



PRODUCT DESCRIPTION

- Description: Fluorescent dextrans are designed for signal amplification in flow cytometry applications using biotin-streptavidin binding for flexible target detection.
- Tested application: flow cytometry
- Functional group: Biotin binding (via_streptavidin)
- Storage instruction: store in the dark at $2\text{-}8\,^\circ\!\!\mathbb{C}$
- Storage buffer: aqueous buffered solution (PBS 20 mM, 150 mM Sodium Chloride, pH 7.4) containing 1% BSA and 0.09% Sodium Azide.
- Intend of use: conjugation with monobiotiny lated proteins to improve fluorescent signal in flow cytometry.
- Presentation: liquid

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Dextran concentration: 0.1 μM

2. PRODUCT DETAILS

The product consists of dextran polymers conjugated with R-Phycoerythrin (R-PE) and streptavidin, allowing efficient binding to biotinylated molecules. This conjugation improves signal amplification and sensitivity in flow cytometry assays, especially for rare populations or low expressing manufacturers.

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. ADDITIONAL INFORMATION

For research use only. Not for diagnostic use.

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Figure I. (A) Fluorescent dextran; (B) Fluorescent dextran with biotinylated protein attached.