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ab270022

Maleimide-Alkaline Phosphatase

A product of Expedeon, an
Abcam company

Applicable to Expedeon product codes 402-0002, 402-0005.

View ab270022

Maleimide-Alkaline Phosphatase datasheet:

www.abcam.com/ab270022

(use www.abcam.cn/ab270022 for China, or www.abcam.co.jp/ab270022 for Japan)

This product is for research use only and is not intended for
diagnostic use.

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1. Overview

Maleimide-Alkaline Phosphatase (ab270022) is designed to facilitate the conjugation of Alkaline Phosphatase to proteins, peptides and ligands that contain sulfhydryl (-SH) groups. The reactive maleimide group that has been added to Alkaline Phosphatase allows conjugation to be performed very efficiently at physiological pH.

2. Materials Supplied and Storage

Store product at -20°C upon receipt.

| Item | Quantity | Storage temperature |
|--|----------|---------------------|
| Maleimide-Alkaline Phosphatase (lyophilized) | 2 mg | -20°C |

3. Technical Considerations

The buffer in which the thiolated molecule is dissolved should be in the pH range 6.5-7.5. Phosphate buffered saline pH 7.2 is commonly employed.

Please see the below table for recommended buffer conditions and components:

| Buffer components | Compatibility |
|------------------------------|---------------|
| pH range 6.5-7.5 | Yes |
| Chelating agents (e.g. EDTA) | No |
| Primary amines | Yes |
| Reducing reagents | No |
| Sodium Azide | < 0.1% |

Molecules that do not contain –SH groups can be chemically modified to introduce the required thiol functionality. Abcam offers a thiolation kit (ab270020) compatible with this product. In the case of antibodies, disulfide (S-S) bridges may also be cleaved to release free thiols.

Any reducing reagent (e. g. dithiothreitol and β -mercaptoethanol) used to produce free thiols should be removed before proceeding with the conjugation.

4. Assay Procedure

- 4.1 Allow the vial of Maleimide-Alkaline Phosphatase to warm to room temperature.
- 4.2 Remove the crimp seal and reconstitute the lyophilized powder by adding a buffered solution of the thiol-containing molecule. Gently agitate the vial to ensure thorough dissolution.

4.3 Incubate for 3-4 hours (or overnight) at room temperature and then store at +4°C.

Technical Support

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