

Magic Fast™ ALP Conjugation Kit

CD4005-1 mg

(User Reference Guide)

Important Notes

The information provided in this document and the methods included in this package are for information purposes only. Creative Diagnostics provides no warranty of performance or suitability for the purpose described here in. The performance of labeling using this kit may be affected by antibodies. Sample data are provided for illustration and example purposes only. Information about the chemicals and reagents used in the kit are provided as necessary.

The reagents provided are for research use only. Not for use in diagnostic procedure.

Product Overview

Creative Diagnostics has designed the Magic Fast™ ALP conjugation kit to enable the direct labeling of any antibodies, antibody fragments, proteins, peptides or other biomolecules with an available amine group to accelerate life science fundamental research and the development of the diagnostic kit. Our technology can be used to label both small (e.g. 50 µg) and large quantities of biomolecules with ease. The researcher simply pipettes their materials into the vial and incubates for 3 hours.

Performance

- Material selection: Any proteins, antibodies, antibody fragments, peptides or other biomolecules with available amine groups.
- Reactivity: free -NH₂.
- Linkage stability: Activation of proprietary reagents within the offered solution results in directional covalent bonding of ALP to the biomolecules.
- East-to-go: By circumventing desalting or dialysis steps that commonly interrupt traditional antibody conjugation procedures, the researchers get the conjugated biomolecules after simply mixing the materials together.
- Yield: Circumvention of the purification steps makes our Magic Fast™ ALP conjugation kit can reach 100% recovery and allows materials to start at small quantities (e.g. 50 µg).
- Rate: Instant reaction; the whole process less than 3 hours.
- Consistence: Good reproducibility from batch to batch.



Kit Components

- Solution A: Catalyzer solution (1 vial)
- Solution B: Activated ALP solution (10 mg/ml, 1 vial)
- Solution C: Stabilizer

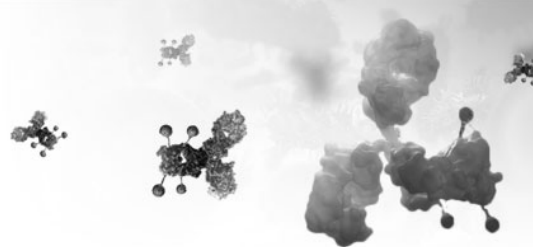
Cat.	Amount of Antibody	Solution A	Solution B	Solution C
CD4005-100µg	100 µg	20 ul	12 µl	1 ml
CD4005-500µg	500 µg		60 µl	5 ml
CD4005-1mg	1 mg		120 µl	10 ml
CD4005-5mg	5 mg	40 ul	600 µl	50 ml

Note: The kit above is designed for antibodies, but works well for any amine-containing biomolecule. Please follow same technical tips if required.

Recommended Application Notes

- Suggested optimal concentration for antibody conjugation is 4-6 mg/ml.
- The recommended conjugation ratio of antibody to ALP is 1:0.8.
- Solution A (µl) / Unconjugated material (ug): 0.75 µl / 100 µg.
- Solution B (µg) / Unconjugated material (ug): 80 µg / 100 µg.
- Solution C (ml) / Conjugated material (µg): 1 ml / 100 µg.

Each laboratory should determine an optimum amount for use in its particular application.



Buffer Considerations

Buffer Components & Conditions	
Amine free buffer (e.g HEPES, MES, MOPS and phosphate)	Yes
Borate buffer	Yes
Chelating agents (e.g. EDTA)	Yes
Glycerol	No
Glycine	No
Material supplied in ascites fluid, serum, hybridoma or tissue culture media	No
Merthiolate	No
Non-buffering salts (e.g. sodium chloride)	Yes
Other biomolecules	Primary amines required
Peptides	Yes
pH	6.0-8.5
Proclin	No
Proteins	Yes
Purified antibody	Yes
Sodium Azide	No
Sugars	Yes
Thiomersal / Thimerosal	No
Tris	No



Storage

- Solution A: Stable at 4°C for 1 week. Stable at -20°C for 18 months.
- Solution B: Stable at -20°C for 18 months.
- Conjugated Materials: Stable at 2-8 for 12 months if Solution C is added.

Assay Procedure

1. Equilibrate all materials and prepared reagents to room temperature prior to use. (Solution A should be thoroughly mixed after it has completely melted.)
2. Add 80 µg of Solution B (Activated ALP solution) to each 100 µg of antibody to be labeled and mix gently.
3. Add 0.75 µl of Solution A (Catalyzer solution) to each 100 µg of antibody to be labeled and mix gently.
4. Replace cap on the vial and leave standing for 3 hours in the dark at room temperature (20-25°C). Longer incubation times, such as overnight at 4°C is also recommended and have no negative effect on the conjugation.
5. After incubating, the conjugated reagent is ready to use. This conjugation do not require purification.

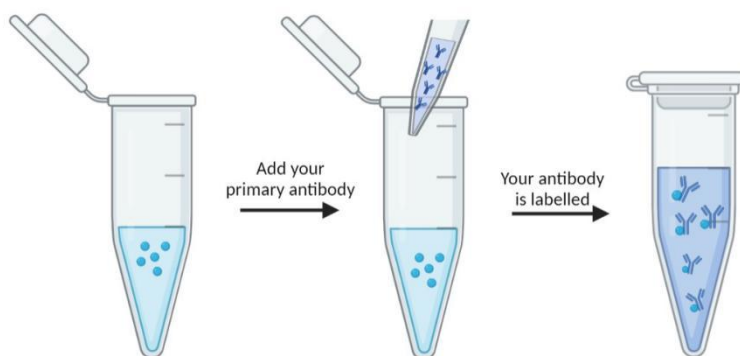


Figure 1. Assay Procedure of Magic Fast™ ALP Conjugation Kit

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