

Amine Coupling Kit

A1507130

Storage: 2-8°C.

Shipping: Shipped with Wet ice. Please store under the specified storage conditions immediately upon receipt.

Introduction

Amine Coupling Kit is a specialized set of reagents and materials used to covalent immobilization biomolecules (like antibodies, proteins, or peptides) carrying a primary amine group onto a carboxylated sensor surface for analysis using Surface Plasmon Resonance (SPR) biosensors.

The kit contains reagents sufficient for 30 to 50 immobilizations.

The kit can be used with All Biacore™ systems except Biacore 8K+、Biacore 8K、Biacore T200、Biacore S200 和 Biacore X100.

Kit Contents

A1507130	Component Name	Appearance	1 kit	Storage	Quantity Per Test
A1507130A	N-Hydroxysuccinimide(NHS)	White solid	115mg	2-8°C	Prepare according to instructions
A1507130B	1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride(EDC)	White solid	750mg	2-8°C	Prepare according to instructions
A1507130C	1M Ethanolamine hydrochloride-NaOH pH 8.5	Colorless liquid	10.5mL	2-8°C	Prepare according to instructions

Instruction for use

1. Reagent preparation
 - (1) Dissolve the **1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride(EDC)** and **N-Hydroxysuccinimide(NHS)** by adding 10.0 mL of filtered, deionized water to each vial.
 - (2) Cap vials tightly and agitate until the solids are completely dissolved.
 - (3) Dispense the EDC and NHS solutions separately in aliquots for storage.
 - (4) Store the aliquots of EDC and NHS frozen at -18°C or below. **1M Ethanolamine hydrochloride-NaOH pH 8.5** may be stored at 2°C to 8°C.

2. Handling

(1) Thaw frozen aliquots and agitate them gently to make sure that the solutions are homogeneous.

(2) For Biacore systems with autosampler:

Place the aliquots separately in the autosampler as instructed in the software.

(3) For Biacore systems without autosampler:

Mix equal volumes of EDC and NHS immediately before use.

3. Suggested immobilization procedure

This protocol provides recommendations for immobilization of ligands by amine coupling to Biacore™ sensor chips. The user needs to optimize the reaction conditions based on the actual situation.

(1) Activate the surface by injecting a mixture of EDC/NHS (1:1) for 6-10 min (30 s for Sensor Chip PEG).

(2) Immobilize the ligand by injecting the ligand solution for 5-10 min.

(3) Deactivate excess reactive groups by injecting **1M Ethanolamine hydrochloride-NaOH pH 8.5** for 6-7 min.

Matters needing attention

1. EDC and NHS Reagent solutions should be freshly prepared and mixed shortly before use. The efficiency of the immobilization will be reduced if solutions are not fresh.
2. The EDC/NHS ester has a short half-life, so ligand should be injected shortly after activation.