Immobilized Trypsin Protocol and Product Information Sheet

Product Category: Immobilization Resins
Catalog Number(s): g4107-2ml, g4107-5ml, g4107-15ml
Product Name: Immobilized Trypsin

Immobilized Trypsin

Immobilized Trypsin 2 ml (g4107-2ml), 5 ml (g4107-5ml), or 15 ml (g4107-15ml) of settled gel is supplied as a 50% slurry in buffer containing 0.05% NaN_3 and 50% glycerol.

Gel Support: Crosslinked 6% beaded agarose.

Storage: Upon receipt store at 4°C (shipped at ambient temperature).

Immobilized Trypsin Digestion Protocol

> **Note:** Optimization of Immobilized Trypsin protocol is required for specific applications. Recommended reaction conditions are pH 7.5 to 9.0 at 37ºC. The reaction rate will be increased by increasing the enzyme to protein substrate ratio and incubation temperature. For example, a typical digestion of 4 hours to overnight can be achieved using a ratio of 1:25 enzyme to protein substrate, while it is recommended to use 1:10 enzyme to protein substrate for accelerated trypsin digestion (0.5 to 1 hour).

1. Make 100 mM Ammonium Bicarbonate (NH_4HCO_3), pH 8 (or other suitable buffer such as 100 mM Triethylamine Acetate, pH 8) for use as a digestion buffer.
2. Dissolve 1 mg of your protein sample in 500 µl digestion buffer.
3. Wash 0.15 to 0.3 ml of the Immobilized Trypsin with 3 x 0.5 ml of digestion buffer. Separate the gel from the wash buffer after each wash by centrifugation or by using a serum separator. Discard buffer after each wash.
4. Re-suspend the washed Immobilized Trypsin gel in ~200 µl of digestion buffer, and add the Immobilized Trypsin to your protein sample.
5. Incubate enzyme/substrate mixture in a shaking water bath for 2-18 hours at 37°C with rapid agitation.
6. Separate the Immobilized Trypsin resin from the digestion mixture as noted in step 3. Retain supernatant as your trypsin-digested protein sample.

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