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Product sheet

tilibit folding kit basic, type p8064

Store at -20°C

Product No.: K1-5-0

Description:
This kit contains materials for preparing DNA origami self-assembly reactions and a custom gel loading dye for analyzing reaction products using agarose gel electrophoresis. Ultrapure water and staple DNA strands are not included.

Contents:
500 µl 100 nM single-stranded scaffold DNA, type p8064
500 µl tilibit 10x folding buffer XM
500 µl 200 mM MgCl2 stock solution
1000 µl tilibit 6x gel loading dye

Please refer to individual product data sheets for details.
The gel loading dye does not contain EDTA, SDS, or glycerol and supports straight bands in agarose gel electrophoresis.

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Guidelines:
To prepare a 'standard' self-assembly reaction with 100 µl volume, mix the following components:

vol [µl]	
10	tilibit 10x folding buffer XM
	either
10	**200 mM MgCl2 stock solution (3D DNA origami)**
	or
6	**200 mM MgCl2 stock solution (2D DNA origami)**
20	100nM single-stranded scaffold DNA
N	staple DNA strand mixture (sold separately) (for a final staple strand conc. of 200 nM)
	either
60-N	**ultrapure ddH20 (3D DNA origami)**
	or
64-N	**ultrapure ddH20 (2D DNA origami)**

Mix gently, but thoroughly.
Incubate at 65°C for 10 minutes.
Cool from 60°C to 40°C with a rate of 1°C per hour.

The kit is good for 25 reactions.
Gel loading dye: use in 6-fold effective dilution.

Exemplary references for usage:

Rothemund, PWK: "Folding DNA to create nanoscale shapes and patterns" -- Nature. 2006 Mar 16; 440(7082):297-302

Douglas, SM; Dietz, H; Liedl, T; Högberg, B; Graf, F; Shih, WM: "Self-assembly of DNA into nanoscale three-dimensional shapes" -- Nature. 2009 May 21; 459(7245):414-418

Detailed usage recipes:

Castro CE, et al: "A primer to scaffolded DNA origami" — Nature Methods. 2011 Mar; 8(3): 221-9