# **UNITED STATES**

# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-A/A

**AMENDMENT NO. 1** 

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO

**SECTION** 

12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

HOLOGIC, INC.

(Exact name of registrant as specified in its charter)

Delaware (State of incorporation or organization)

04-2902449 (IRS Employer Identification No.)

**35 Crosby Drive, Bedford, MA** (Address of principal executive offices)

01730-1401 (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which

to be so registered Preferred Share Purchase Rights each class is to be registered The Nasdaq Stock Market LLC

to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box. x

If this form relates to the registration of a class of securities pursuant If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), please check the following box. "

Securities Act registration statement file number to which this form relates: Not applicable.

Securities to be registered pursuant to Section 12(g) of the Act: None

#### AMENDMENT NO. 1 TO FORM 8-A

Hologic, Inc., a Delaware corporation (the Company ), supplements and amends its Registration Statement on Form 8-A (File No. 000-18281), dated December 4, 2002 (the Registration Statement ), as follows:

### ITEM 1. DESCRIPTION OF REGISTRANT S SECURITIES TO BE REGISTERED.

On May 20, 2007, the Company entered into an Agreement and Plan of Merger (the Merger Agreement ), among the Company, Nor easter Corp., a Delaware corporation and wholly owned subsidiary of the Company , and Cytyc Corporation, a Delaware corporation ( Cytyc ).

In connection with entering into the Merger Agreement, the Company has entered into an amendment to its Rights Agreement, dated as of September 17, 2002, between the Company and American Stock Transfer & Trust Company, a New York trust company (the Rights Agreement Amendment ). The Rights Agreement Amendment is filed as Exhibit 4.2 hereto and is incorporated herein by reference.

#### ITEM 2. EXHIBITS.

4.2 Amendment to Rights Agreement, between the Company and American Stock Transfer & Trust Company, as rights agent.

#### **SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: May 21, 2007

HOLOGIC, INC.

By: /s/ Glenn P. Muir Name: Glenn P. Muir

Title: Chief Financial Officer

#### EXHIBIT LIST

### EXHIBIT NO. DESCRIPTION

4.2 Amendment to Rights Agreement, between Hologic, Inc. and American Stock Transfer & Trust Company, as rights agent.

4