UNITED STATES SECURITIES AND EXCHANGE COMMISSION April 29, 2010

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Targacept, Inc.

File No. 000-51173- CF#24852

Targacept, Inc. submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-K filed on March 11, 2010.

Based on representations by Targacept, Inc. that this information qualifies as confidential commercial or financial information under the Freedom of Information Act, 5 U.S.C. 552(b)(4), the Division of Corporation Finance has determined not to publicly disclose it. Accordingly, excluded information from the following exhibit(s) will not be released to the public for the time period(s) specified:

Exhibit 10.19 through March 10, 2015 Exhibit 10.20 through March 10, 2015

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Kathleen Krebs Special Counsel