



Technical Bulletin

ELISA Wash Technique and Sample Handling Technical Bulletin

Wash Technique

The MicroVue Complement ELISA kits are designed to provide laboratories with accurate analysis of circulating immune complexes and complement activation products for clinical or experimental specimens as a result of precise assay technique in each step of every ELISA assay. Each ELISA requires one or more wash steps, in which the microassay plate or coated strips are thoroughly washed with a wash buffer, according to the appropriate assay protocol. The technique utilized in the wash steps is a critical factor in the overall performance and accuracy of the ELISA being performed. Quidel strongly recommends the use of an automated plate washer or wash bottle equipped with a pump and an 8-channel head to perform the wash steps in each assay. Use of a single or multichannel pipette as a wash device is strongly discouraged. During ELISA testing performed at Quidel, it has been observed that when washing is performed with a single or multichannel pipette, erroneous and inaccurate results with high CV values are produced. This issue is caused by a lack of pressure produced by the device. A more forceful wash is required to ensure thorough removal of any non-specific binding that may have occurred during the course of the assay.

An automated plate washer or wash bottle, as previously mentioned, are two devices that produce enough pressure to wash with adequate force when used correctly.

A video of the microassay plate/coated strip wash procedure using a wash bottle equipped with a hand pump and 8-channel head is available from Quidel Technical Support upon request. Please refer to the appropriate Package Insert for specific information on proper washing procedure for each assay.

Sample Handling and Storage

Proper specimen handling and storage are crucial to the accuracy of all MicroVue Autoimmune and Complement ELISAs. All specimens should be handled and stored according to the appropriate guidelines for the assay that is being performed. Many of the assays for measurement of complement activation products require that samples be stored frozen at -70°C or below, which is critical for preventing further complement activation during storage in samples that will be tested at a later date. *Samples that require storage temperatures of -70°C or below can produce erroneous results when stored at temperatures above -70°C .*

Additionally, all specimens that are stored frozen should not be subjected to multiple freeze-thaw cycles, which can affect the integrity of the specimen. If repeat testing is to be performed, the sample

should be frozen in multiple aliquots (preferably in single-use tubes) to avoid potential damage due to subsequent freezing and thawing.

Frozen specimens should be thawed immediately prior to testing. Quidel strongly recommends following the rapid-thaw procedure listed below for all frozen samples:

- Place frozen samples into a 37°C water bath
- Monitor samples and remove from water bath when samples are just thawed
- Immediately place into ice bath

Cat. #s for Diagnostic Use: A001, A002, A013, A018, A027, A037

Cat. #s for Research Use Only: A006, A008, A020, A021, A031, A033, A035, 20261

Please contact Quidel Technical Support at 800.874.1517 (in the U.S.), 858.552.1100 (outside the U.S.) or technicalsupport@quidel.com if you have any questions regarding MicroVue Complement kits, or any Quidel product. Our hours of operation are Monday through Friday, 8:00 a.m. to 5:00 p.m. Eastern Time.

You may also visit our website at quidel.com for information on Quidel's line of Rapid Diagnostics, Molecular Diagnostics, Cell Culture and Specialty Products (Bone Health and Autoimmune & Complement). Other product information available on our website includes: CPT codes, CLSI procedure guides, MSDS, and Package Inserts.

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