Technical Service Report

Stability of Wash Solution Concentrate

Purpose:

To evaluate the performance of Wash Solution Concentrate when stored at 4°C and room temperature over time.

Reagents:

This study compares the performance of six lots of Wash Solution Concentrate. Representative samples of each of the following lots were stored at 4°C and room temperature from the date of manufacture.

Lot Number	Date of Mfg.
JF42	6/87
KC65	3/88
LB14	2/89
ME28	5/90
ND25	4/91
PA05	1/92

Test Parameters:

The solutions were evaluated using a microwell ELISA procedure. The assay was performed as follows:

1. Add 100 µl Human IgG (Cappel; Lot 34428) diluted to 2.5 µg/ml in PBS to all wells in Rows A-H. Incubate one hour at room temperature.
2. Block all wells with 300 µl BSA Diluent/Blocking Solution Concentrate (Cat. No. 50-61-00), Lot PB12, diluted 1:10 in reagent quality water, and incubate 10 minutes at room temperature.
3. Prepare a 1:500 dilution of Peroxidase-labeled Goat anti-Human IgG (H+L) (Cat. No. 14-10-06), Lot NL77-5, in diluted BSA Diluent/Blocking Solution. Add 200 µl of the diluted conjugate to all wells in Row A . Add 100 µl of BSA Diluent/Blocking Solution to all wells in rows B-H. Perform serial two-fold dilutions of the conjugate by transferring 100 µl from each well in Row A to the well below . Continue to make dilutions through Row G, leaving Row H as a diluent blank.
4. Incubate conjugate on plate for one hour at room temperature.
5. Prepare each wash solution sample by diluting Wash Solution Concentrate (Product Code 50-63-01) 1:20 in reagent quality water. Prepare each lot in a separate tube.
6. Add 300 µl diluted wash solution to all wells in the appropriate rows (See Figure 1), and allow to soak for three minutes. Empty plates and repeat wash cycle for a total of five washes.
7. Prepare ABTS Substrate Solution by mixing equal volumes of ABTS Substrate Solution (Lot PA16) and Substrate Solution B (Lot PB40).
8. Add 100 µl of substrate solution to all wells.
9. The O.D. for each well is determined by the Dynatech MR650 ELISA reader at 410 nm.

Results:

Samples of Wash Solution Concentrate show no significant variation in O.D. values among the test lots (Figure 1). The O.D. values for the blank wells (Row H) were comparable for all test samples, which indicates that storage of this product over time does not produce higher background.

Conclusions:

KPL's Wash Solution Concentrate appears very stable over the five year study period. The performance of the product appears to be equivalent when stored at either 4°C or room temperature.

Figure 1.
ELISA data after 4 minutes

	Lot JF42		Lot KC25		Lot LB14		Lot ME28		Lot ND25		Lot PA05	
	4°C	RT	4°C	RT	4°C	RT	4°C	RT	4°C	RT	4°C	RT
	1	2	3	4	5	6	7	8	9	10	11	12
A	1.988	1.988	1.975	2.001	2.029	2.029	2.044	2.059	2.074	2.000	2.000	2.000
B	1.835	1.817	1.844	1.854	1.884	1.884	1.905	1.916	1.927	1.963	1.063	2.015
C	1.643	1.620	1.656	1.650	1.668	1.668	1.681	1.701	1.715	1.751	1.715	1.800
D	1.305	1.255	1.250	1.235	1.265	1.245	1.272	1.280	1.291	1.316	1.302	1.387
E	0.813	0.785	0.770	0.761	0.775	0.792	0.780	0.787	0.789	0.798	0.794	0.876
F	0.457	0.445	0.428	0.422	0.433	0.445	0.431	0.442	0.425	0.440	0.438	0.488
G	0.260	0.250	0.243	0.242	0.240	0.247	0.245	0.248	0.244	0.252	0.251	0.285
Blank	0.055	0.056	0.057	0.056	0.055	0.060	0.056	0.056	0.054	0.056	0.054	0.056

2 Cessna Court, Gaithersburg, MD 20879-4174 USA 301.948.7755 800.638.3167 FAX 301.948.0169