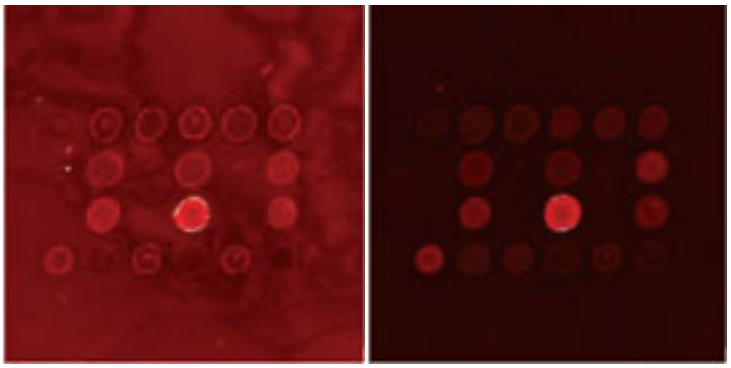
A comparison of results

Protein Array

without LowCross-Buffer® with LowCross-Buffer®



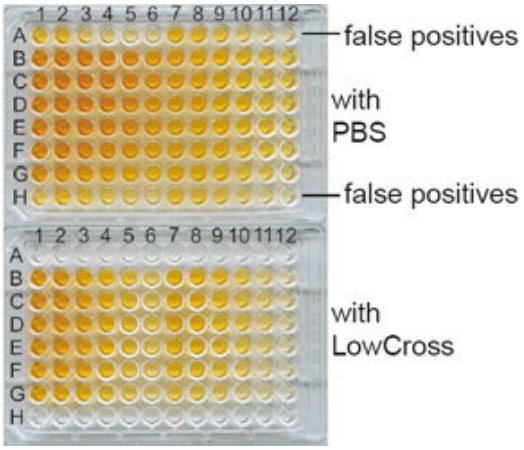
Reduction of background

Multiple antibodies against an identical analyte spotted on a slide

signal to noise ratio
without LowCross-Buffer®: 3,42
with LowCross-Buffer®: 17,26

(Data from Dipl. Chem. N. Dankbar, University of Münster)

ELISA

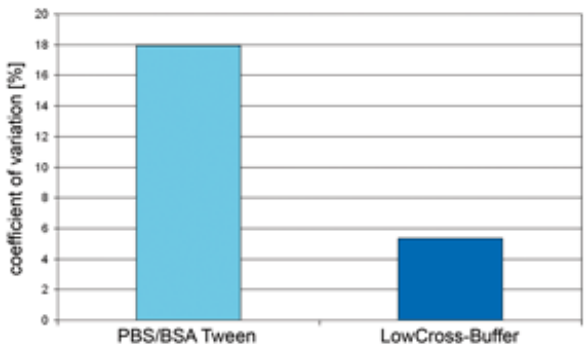


Elimination of false-positive binding

Control of specifity in (A1-12) and blanks (H1-H12) show false positive binding.

(Data from Dr. C. Specht, vivo Science GmbH, Gronau)

ELISA



Decrease of the CV

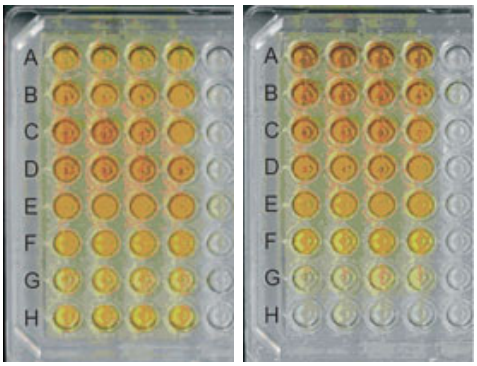
Interference from used human plasma caused a high coefficient of variation (CV) with PBS/BSA Tween (n=96, determined over the whole measurement range).
CV is decreased significantly by using LowCross-Buffer®.
The reason is the avoidance of an interference effect. Thus criteria of the „Guidance for Industry - Bioanalytical Method Validation“ of the FDA could be met. They require for accuracy and precision a maximum of 15%.

(Data from Dr. P. Rauch, CANDOR Bioscience GmbH)

ELISA

without LowCross-Buffer®

with LowCross-Buffer®



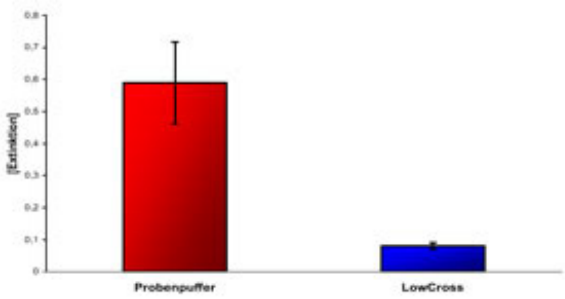
(Data from Dr. Ch. Specht, PARA BioScience GmbH, Gronau)

Better sensitivity

(LOD lowered from 0,051 to 0,022 and LOQ from 0,152 to 0,065, in addition to an improved working range).
Elimination of cross reactivities in preimmunsera and reduction of background.

Antigen coated, serial dilutions of four immunsera (1:50 to 1:36450) A-G, corresponding preimmunsera in H blank value: column 5

ELISA



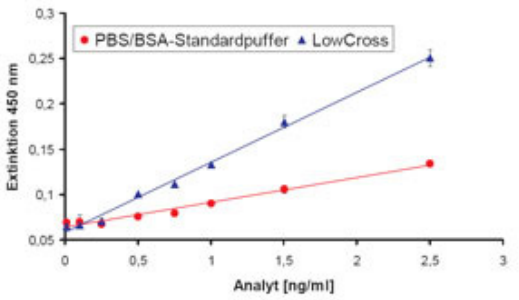
(Data from M. Braun, PD Dr. H.-P. Wendel, Clinic of Thorax-, Cardiac- and Vascular Surgery, research laboratory, University Hospital of Tübingen)

Reduction of background

Reporter antibody is coupled to alkaline phosphatase. It binds nonspecifically and directly to the capture antibody in absence of the analyte.

LowCross-Buffer® prevents this non-specific binding. Background of the assay is significantly reduced.

ELISA



(Data from A. Zellmer, Dr. P. Rauch, CANDOR Bioscience GmbH

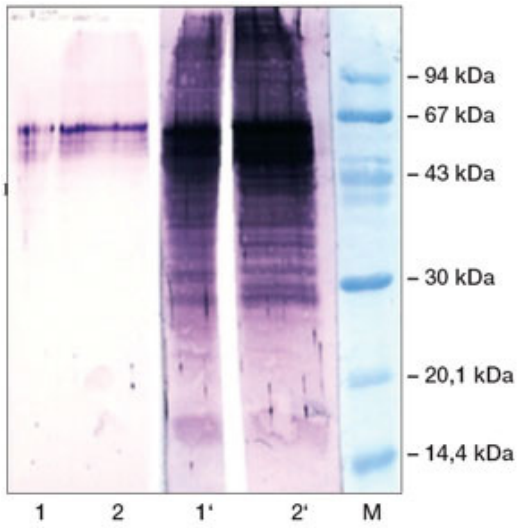
Elimination of a matrix effect

Matrix effect in an assay for detection of CRP (c-reactive protein) in rabbit blood plasma. Matrix proteins in plasma mask the analyte CRP.

LowCross-Buffer® demasks the analyte and improves sensitivity and detection limit by a factor of 3.

Western Blot

with LowCross with TTBS



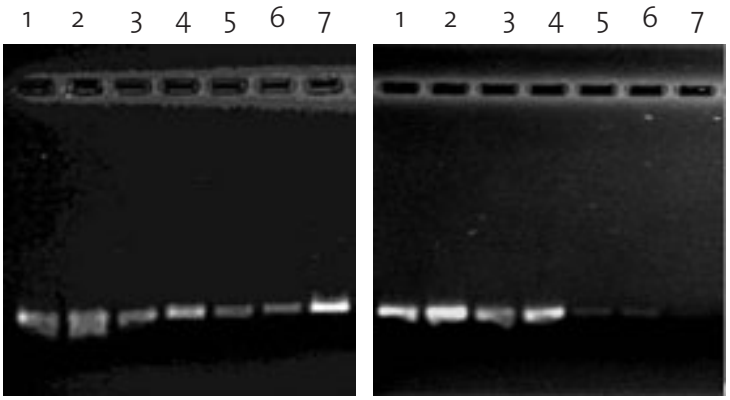
(Data from Dr. D. Sperling, MACHEREY-NAGEL, Düren)

Elimination of non-specific binding

Detection of cytokeratin 4, 5 and 6 is affected by a combination of non-specific binding and cross-reactivities in a dramatic way.The exspected bands can be clearly detected with LowCross-Buffer®.

Lanes 1 and 1' show detection from liver cells
Lanes 2 and 2' show detection from HeLa-cells

Immuno-PCR



(Data from A. Fischer, PD Dr. K. Becker, Institute of Medical Microbiology, University Hospital of Münster)

Reduction of non-specific binding (lane 5-7)

Detection of Enterotoxin A from staphylococcus

Non-specific binding, producing false-positive results, is completely reduced by using LowCross-Buffer®

HAMA-ELISA

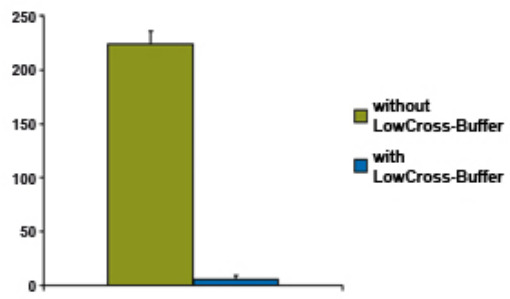
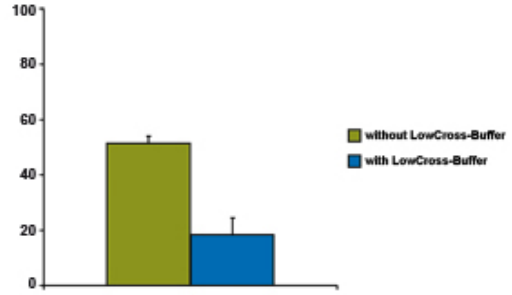


Fig.1: HAMA Serum

Active against HAMA and Rheumatoid Factor

The effectiveness of LowCross-Buffer® towards HAMA and RF derived interferences has been quantified in a CE-certified ELISA (HAMA-ELISA, Medac, Germany) using commercial HAMA and RF positive human blood samples (in.vent diagnostica, Germany).



Representative results obtained with and without LowCross-Buffer® are shown in fig. 1 and fig. 2.

Fig.2: RF Serum

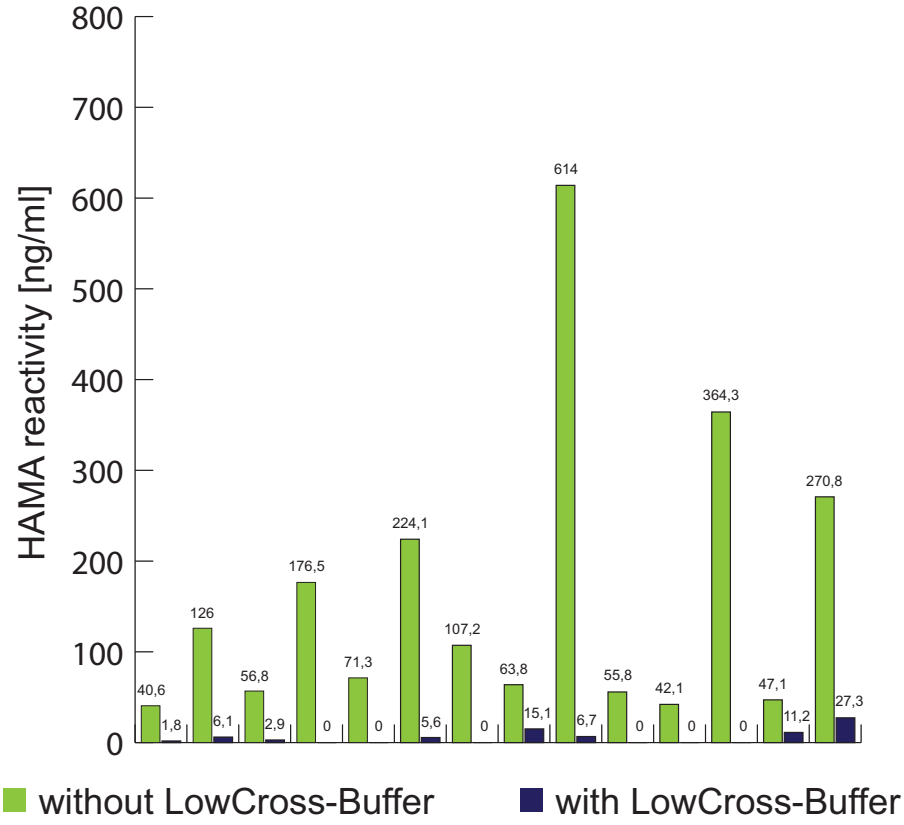


Fig.3: HAMA Sera

Fig.3 shows LowCross-Buffer® effect on HAMAs using complete commercial HAMA positive human blood sera panels from the companies in.vent diagnostica, Germany and Scantibodies, USA.
Only data from sera tested positive with HAMA-ELISA are shown.
There was no HAMA-positive serum, which did not show this effect by using LowCross-Buffer®. LowCross-Buffer® reduces interferences in HAMA positive samples to background levels (<40 ng/ml, according to HAMA-ELISA manual).