

optimising
Immunoassays!

LowCross™-Buffer

**The sample and antibody dilution buffer for
ELISA, EIA, RIA, Protein Arrays,
Western Blotting, Immuno-PCR
and Immunohistochemistry.**

LowCross™ minimises interference in Immunoassays

LowCross™-Buffer was developed for minimisation of unspecific binding, cross-reactivities and matrix effects.

It is useful for ELISA, EIA, RIA and Western Blotting but also for Protein Arrays, Immuno-PCR and Immunohistochemistry.

LowCross™-Buffer is free of phosphate.

- LowCross™ minimises matrix effects
- LowCross™ minimises unspecific binding
- LowCross™ minimises cross-reactivities



LowCross™-Buffer

The newly developed LowCross™-Buffer helps in the reduction of interferences of assays. Thus quality of detection can be significantly improved. Unspecific binding of the antibody, negative effects of disturbing substances and low affinity cross reactivities of the antibody are minimised. In addition matrix effects, coming for example from blood sera or plasma specimen, are reduced. That means that matrix effects no longer worsen detection of analytes. Minimisation of all this negative effects upgrades quality of the assay and improves the reliability of results. LowCross™-Buffer is free of phosphate.

Ready-to-use

Sample with the analyte - as well as the detection antibody - is diluted in LowCross™ and used in the assay.

LowCross™ is used instead of the ordinary sample or antibody dilution buffer.

In very delicate assays - like Immuno-PCR - LowCross™ can be used in addition as washing buffer.

pH-value:	pH 7,2
preservative:	contains 0,005% thimerosal
Storage:	shelf life at -20 °C, 1 year repeated freezing and thawing cycles possible shelf life at 2-8 °C, 6 months

For research use only, not for diagnostic use

available			
packaging size:	50 ml	order number	100050
	125 ml	order number	100125
	500 ml	order number	100500

Comparison of results

without LowCross™

with LowCross™

Proteinchip

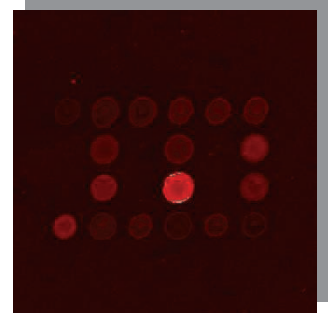
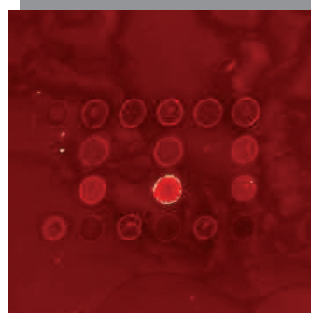
reduction of background

several antibodies against an identical analyte spotted on a slide

signal to noise ratio

without LowCross™: 3,42

with LowCross™: 17,26



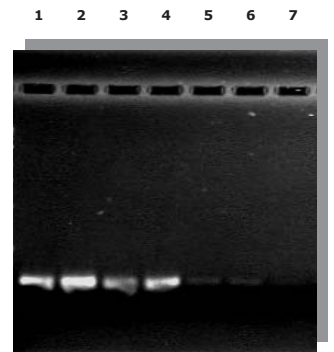
(data from Dipl. Chem. N. Dankbar, University of Münster)

Immuno-PCR

reduction of unspecific binding (lane 5-7)

detection of Enterotoxin A from staphylococcus

Unspecific binding, producing false-positive results, is completely reduced by use of LowCross™.



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

Western Blotting

reduction of unspecific binding and background



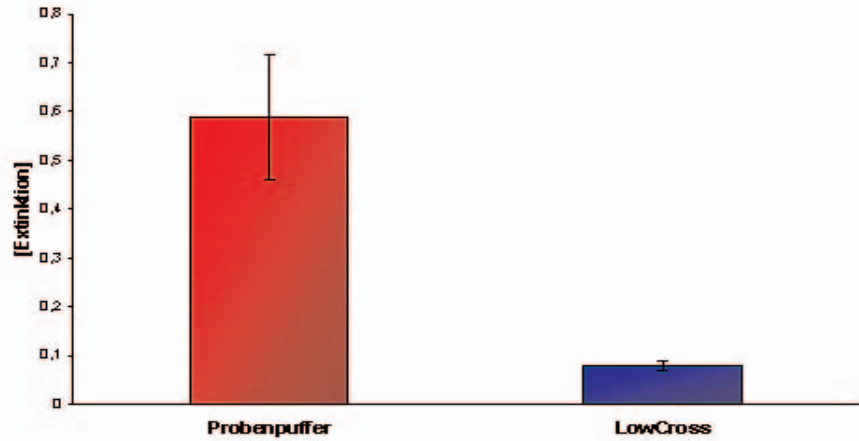
(data from S. Siewert, A. Döhring, PD Dr. W. Weidemann, Institute of Zoology and Endocrinology, University of Ulm)

ELISA

reduction of background

Detector antibody is coupled to alkaline phosphatase. It binds unspecific directly to the capture antibody in absence of the analyte.

LowCross™ prevents this unspecific binding. Background of the assay is thus significantly reduced.



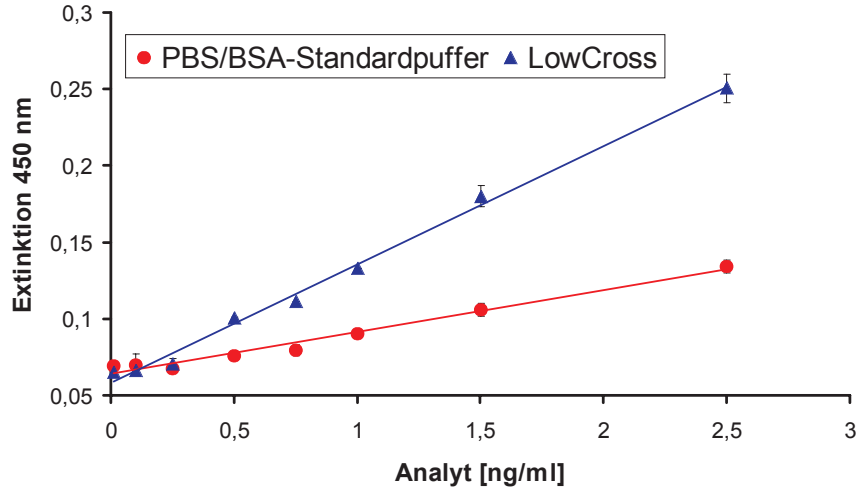
(data from M. Braun, PD Dr. H.-P. Wendel, Clinic of Thorax-, Cardiac- and Vascular Surgery, research laboratory, University Hospital of Tübingen)

ELISA

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™ demasks the analyte and improves sensitivity and detection limit.



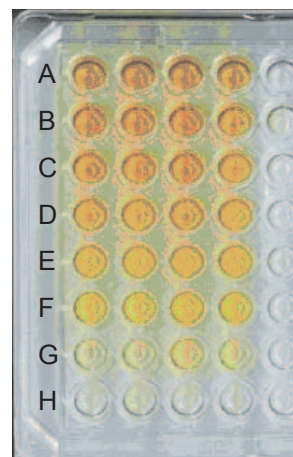
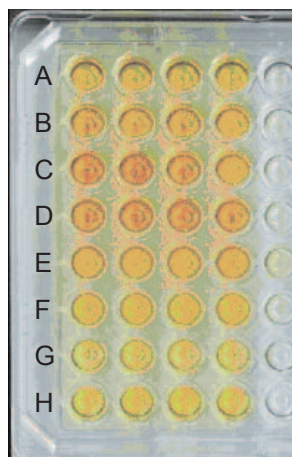
(data from A. Zellmer, Dr. P. Rauch, CANDOR Bioscience GmbH)

ELISA

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, reduction of background

without LowCross™

with LowCross™



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

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