LowCross-Buffer® (5x)

Product overview

Catalog number	CR303
Description	Concentrated antibody and sample diluent for minimizing nonspecific binding, cross-reactivities and matrix effects in immunoassays. Protein- and animal-free.
Storage	2 – 8 °C
pH-value at 19.0 – 21.0 °C	7.2 ± 0.2
Preservative	Contains < 0.0014 % [w/w] reaction mass of CMIT/MIT (3:1)
Expiry date when stored unopened	See label on the bottle
	FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

Fields of application

ELISA, CLIA, FIA	Dilution buffer for specimen and detection antibodies
Western blotting	Dilution buffer for primary and secondary antibodies
Immunohistochemistry	Dilution buffer for primary and secondary antibodies
Protein arrays	Dilution buffer for specimen and detection antibodies
Lateral Flow assays	Chase buffer or dilution buffer for specimen

Instructions for use

LowCross-Buffer (5x) dilution

To prepare a working solution, LowCross-Buffer® (5x) must be diluted 1:5 into purified water or another buffer - e.g. Sample Buffer protein-free (CR305) - before use (1 part of LowCross-Buffer® (5x) + 4 parts of diluent). Please shake LowCross-Buffer® (5x) thoroughly prior to dilution.

If the 1x working solution of LowCross-Buffer (5x) is stored for extended periods, please ensure adequate supplementation with preservatives to maintain stability.

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Dilution of the specimen

Standards and samples for ELISA and protein arrays should be diluted with the working solution of LowCross-Buffer® (5x) at 1:2 or higher. A useful dilution for most applications is 1:10 (1 part specimen + 9 parts LowCross-Buffer® (5x) working solution). Standards and samples should be treated identically.
Alternatively, LowCross-Buffer® (5x) can also be diluted into the sample (1 part of LowCross-Buffer® (5x) + 4 parts of sample)

Dilution of antibodies

Antibodies can be diluted as required in the working solution of LowCross-Buffer® according to the respective recommendation for dilution in the antibody data sheet. This applies to both primary and secondary antibodies.

Appearance of signal reduction

The LowCross®-effect suppresses low and medium affinity binding events. As a consequence, a slight signal reduction may occur if polyclonal antibodies (which generally also contain low- and medium-affinity binding components) are used. In this case, the amount of high-affinity antibodies can be raised by moderately increasing the antibody concentration in order to achieve the desired signal strength again. The unwanted low and medium-affinity binding will remain suppressed by the LowCross®-effect.

When using low- or medium affinity monoclonal antibodies, signal deletion may occur as the LowCross®-effect completely suppresses their binding. We recommend the use of suitable high-affinity antibodies.

Additional information

The suitability of LowCross-Buffer® (5x) for the respective assay and the respective conjugates must be tested by the user.

Regardless of the use of LowCross-Buffer® (5x), it is necessary to saturate surfaces such as ELISA wells or membranes with a blocking buffer to avoid non-specific binding. For this purpose, we recommend The Blocking Solution (CR110).

The working solution of LowCross-Buffer® (5x) can also be used as a wash buffer for particularly interference-prone and sensitive assays such as immuno-PCR.

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