Assay Defender® *(article no. 180)*

Sample diluent for blocking HAMA and other high affinity interfering antibodies and minimizing nonspecific binding, cross-reactivities and matrix effects in immunoassays based on human or animal body fluids

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 general laboratory use

Fields of application

Assay Defender® is used as a ready-to-use dilution buffer for human or animal body fluid specimens in sandwich or competitive assay formats. Application areas are different assay technologies, such as ELISA, protein arrays, bead assays (e.g. Luminex assays), immuno-PCR, automated high-throughput immunoassay systems or lateral flow assays (as chase or flow buffer). *Assay Defender*® prevents faulty results caused by nonspecific cross-linking of capture and detection antibody due to high affinity interfering antibodies like HAMA and interferences caused by nonspecific binding, cross-reactivities and matrix effects. Addition of other HAMA blockers to *Assay Defender*® is not necessary.

Instructions for use

Assay Defender® is ready-to-use. Please shake the buffer thoroughly before use.

Dilution of the specimens:
Standards and samples should be diluted with *Assay Defender*® at 1:2 or higher. A useful dilution in *Assay Defender*® for most applications is 1:10 (1 part specimen in 9 parts *Assay Defender*®). Standards and samples should be treated identically.

Note: *Assay Defender*® is not used as diluent for antibodies. We recommend using *HRP-Protector*™, *LowCross*® *HRP-Stab* or *AP-Protector*® for the dilution of detection antibodies.

Appearance of signal reduction:
Assay Defender® possesses the *LowCross*®*-effect*, which 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. Suitability of *Assay Defender*® for a specific assay has to be tested by the user.

Even if *Assay Defender*® is used as an assay diluent, it is still necessary to saturate surfaces like ELISA-wells with a surface blocker. We recommend using *The Blocking Solution* (article number 110).

For further information please visit www.candor-bioscience.com.