



## SmartBlock™

### Product description

|               |  |   |
|---------------|--|---|
| Composition:  | free of serum proteins like BSA                |   |
| pH-value:     | 7.0 ± 0.5                                      |   |
| Preservative: | contains 0.045% ProClin® 300 (v/v)             |   |
| Storage:      | shelf life (when stored unopened at -20°C):    | 1 year - tolerates repeated freezing and thawing cycles |
|               | shelf life (when stored unopened at 2 - 8 °C): | 1 year  |

### For research use only, not for diagnostic use

#### Available

|                |        |                      |
|----------------|--------|----------------------|
| Package sizes: | 125 mL | order number 113 125 |
|                | 500 mL | order number 113 500 |

*SmartBlock™* prevents in many assays nonspecific and unwanted binding to surfaces. By incubating surfaces (for example microtiter plates, Western blotting membranes or slides) free binding sites of the surface are saturated by the components of *SmartBlock™*. Thus unwanted binding of analytes or detection antibodies to surfaces is reduced. This makes the background low. Problems of interactions and cross-reactivities with BSA as a component of other blockers are a priori avoided by the use of *SmartBlock™*, because it contains no serum proteins like BSA.

*SmartBlock™* can be used for ELISA, EIA, Western blotting, immuno-PCR and protein arrays.

Suitability of *SmartBlock™* has to be tested in any assay, because of the different surface characteristics of different assay plates and membranes.

Immediately before use the buffer should be mixed thoroughly.

*SmartBlock™* is ready-to-use.

### Instructions for use

#### Saturation / Blocking of microtiter plates

1. If the plate was treated with reagents containing detergents please wash the plate 3 times in a wash buffer free of detergents (e.g. *Washing Buffer TRIS without Tween*, order number 146 500 or *Washing Buffer PBS without Tween*, order number 141 500). If you have only used *Coating Buffer* (order number 120 125 or 121 125) aspirate *Coating Buffer* or empty plates by wrapping firmly onto paper cloth.
2. Add 200-300µl *SmartBlock™* to each well. Incubate at room temperature for 1-4 hours or overnight (mostly one hour is quite enough). Duration of blocking can be minimised by shaking the plate at 600-900 rpm. Duration of blocking depends on characteristics of used surface and has to be tested individually.
3. Aspirate *SmartBlock™* or empty plates by wrapping firmly onto paper cloth. Wash 3 times in wash buffer containing a non-ionic detergent, e.g. *Washing Buffer TRIS*, order number 145 500 or *Washing Buffer PBS*, order number 140 500.

## Saturation / Blocking of membranes

1. If the membrane was treated with reagents containing detergent please wash the membrane 3 times in a wash buffer free of detergents (e.g. *Washing Buffer TRIS without Tween*, order number 146 500 or *Washing Buffer PBS without Tween*, order number 141 500).
2. Incubate membrane in *SmartBlock™* at room temperature for 1-4 hours or overnight (mostly one hour is quite enough). Time of blocking depends on characteristics of used membrane and has to be tested individually.
3. a) Wash membrane 3 times in a wash buffer containing a non-ionic detergent, e.g. *Washing Buffer TRIS*, order number 145 500 or *Washing Buffer PBS*, order number 140 500.

or

- b) add antibody for detection and continue incubation and detection.

In case satisfying results cannot be obtained with the *SmartBlock™*, e.g. if your assay measures analytes in plasma, serum or tissue specimen, we strongly recommend using our highly efficient product *The Blocking Solution* (order number 110 050, 110 125 and 110 500). Efficiency of blocking is significantly improved with *The Blocking Solution* compared to standard blocking procedures by the special production method of CANDOR Bioscience. The active constituent of *The Blocking Solution* is based on a chemically modified, highly purified casein. This leads to significantly reduced background and improved sensitivity and reproducibility of the assay.

*The Blocking Solution* is useable for blocking surfaces in all immunoassays, whereas *SmartBlock™* leads to sufficient results in unproblematic assays.

Background and nonspecific binding can not only occur at surfaces, but also between antibodies and components of complex specimen. In this cases only an assay buffer, which is used for the immunological detection reaction, can lead to satisfactory results. Therefore we recommend using *LowCross-Buffer®* (order number 100 050, 100 125 and 100 500). *LowCross-Buffer®* acts as a filter for binding, which doesn't affect high affinity binding in any way, but depletes nonspecific binding and interference like matrix effects and cross reactivities.

For further information please visit [www.candor-bioscience.com](http://www.candor-bioscience.com).

ProClin is a registered trade mark of Rohm and Haas Company.  
LowCross-Buffer is a registered trade mark of CANDOR Bioscience GmbH.