
AquaBlock™ saturating agent

Description

Name:	AquaBlock™ / IA saturating agent - for WB and other ImmunoAssays
Part Number :	UPAM7281, 500ml
pH :	7.4
Storage:	+4°C <small>(K)</small> Stable > 1 year from date of receipt

Fish serum based blocking reagent for diagnostic systems involving membrane or other solid phase material. This reagent is optimized for superior performance in super sensitive assay systems, while utilizing proteins that do not interact with mammalian antibodies, especially Western Blot with ECL.

AquaBlock™ products are derived entirely from fish, so:

- they **avoid cross-species reactivities observed with mammalian based agents**, such as BSA, fat milk, casein-based agents,...
- they are **not subject to the European Union ban** on all cattle products that could carry Bovine Spongiform Encephalopathy (**no BSE**).

This reagent is a reformulated version of the SeaBlock and excels as a blocker in Western Blot.

Also available in different formulations: see [related products](#).

Direction for use

Note : These are standard protocols for western blotting and ELISA.

Protocol for western blotting

The protein(s) of interest should be separated by SDS polyacrylamide gel electrophoresis (SDS-PAGE). After separation the proteins need to be transferred to nitrocellulose or other suitable membrane (PVDF, Nylon...). Follow the protocol recommended by the manufacturer of the electrophoresis and blotter apparatus.

- Block the membrane for at least one hour shaking in an adequate volume of AquaBlock 1X at room temperature.

Wash once with PBS, Tween 0.05%. The blot can be stored at +4°C.

Note : 25 ml is generally the right volume to incubate minigels 8x8 cm².

- Incubate with the primary antibody under agitation during 1 h in PBS Tween 0.05% with 10% of AquaBlock agent.

Concentration should be determined (usually 0.1-10µg/ml for monoclonals), depending on their affinity, and some antibodies may require up to 2h incubation.

- Wash the membrane extensively (usually 30 minutes with at least 3 changes of buffer, with PBS, Tween 0.05%).
- Incubate with the secondary antibody in PBS, Tween 0.05% with 10% of AquaBlock agent, 1h at room temperature.

This was used successfully for rabbit, mouse and/or rat primary antibodies / corresponding secondary antibody.

Ask Uptima for the right antibody. For example, optimal results were obtained with Goat anti mouse-HRP #UP446330

The appropriate serum, from the species of the primary antibody, can be included too.

Contact your local distributor

Uptima, powered by



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FT-AM7281

- Wash extensively, at least 4 times with PBS Tween 0.05%.
For a chemiluminescent detection, up to 6 washes, and >1h total washes may be required to lower the background significantly without loss of sensitivity
- Incubate with the substrate according to the manufacturer protocol.

Ask **Uptima** for the right substrate.

For example, optimal results were obtained with chromogenic TMB ready solution #E865 and chemiluminescent UptiLight #UP99619A

Protocol for ELISA, Stabilizing immunologicals

See SeaBlock IA [#UP40301A](#)

Scientific and technical information

- AquaBlock™ is a non mammalian formulation, supplied as a liquid conditioned in PBS (pH 7.4) with 0.09% sodium azide. As the SeaBlock agent, it do not interact with mammalian antibodies. This allows very low background to overcome saturating agents like milk, BSA, Gelatin...
- **Applications:** It is optimized for super sensitive assays diagnostic systems involving membrane or other solid phase supports, notably ELISA and Western Blotting. It should suit immunochemistry although not tested for that. This reagent imparts superior stability and flow characteristics, while using proteins that do not interact with mammalian antibodies. This allows very low background to overcome saturating agents like non-fat milk, BSA, Gelatin, FBS...
- **Standard and specific features:** SeaBlock presents not only interesting features of mammalian saturants, but has also unique features:

Some of the Advantages of Seablock:

- **Reproducibility:** SeaBlock™ is obtained from domesticated fish stocks held under controlled conditions. This control of genetics, environment, diet, and reproductive status permits reproducibility and lot-to-lot consistency that would not be possible in sera from wild fishes.
- **Ethics:** Each fish is anesthetized, a few milliliters of blood drawn aseptically, and the fish is returned to the water- all under veterinary supervision.
- **Low Cross Reactivity:** SeaBlock prevents interactions with immunoreagents that are observed for mammalian-based saturants, and responsible of high background in some assays: the wide phylogenetic separation of fish in SeaBlock™ and mammals reduce risks of cross-reactivity with anti mammalian IgG antibodies and anti-DNA or anti-BSA hapten antibodies. Since there is no IgG in SeaBlock , there is no cross-reactivity with Protein A.
- **Molecular Diversity:** SeaBlock like mammalian serum, contains a wide variety of biomolecules and thus prevents non-specific binding in the same/ effective manner. Like mammalian serum, SeaBlock™ does not mask bound proteins.
- **Stabilizes:** Bound Molecules SeaBlock prevents the denaturation of/ proteins during immobilization or drying. The natural body temperature of fishes is room temperature and below. Therefore, SeaBlock is an excellent stabilizer for proteins when used as a diluent of reagents stored refrigerated or frozen.
- **Effective:** SeaBlock is effective for most applications at a concentration of 1% or less.
- **Concentration:** SeaBlock IA is designed to be used at 1x, as well as further dilution's which are dependent upon specific users application.
- One should keep in mind there is no ideal saturating agent for all antigen/application. In case of undesired background, or of low detection of an antigen (masking), try a higher dilution of Seablock, or choose an other agent (see related products). Mixture of agents can even be tested.

Other information

Legals: *for R&D use only*

AquaBlock product is sold for research purposes only. It is not to be used for humans or animals. There is no express or implied warranty. No liability is assumed merchantability, or direct and consequential damage. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Contact your local distributor

Uptima, powered by



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Related products:

SeaBlock IA blocking agent #[UP40301A](#) (and , serum free for lateral flow systems #[UPAP1370](#))

Seagrow #[DO7650](#) (derived from salmonids. Proven to work very well for zebrafish cell culture as a media additive)

BSA Biotech, 30% solution #[UP900100](#)

Non-fat Milk #[768701](#)

Gelatin [N13360](#) - Bloom number: 240-270 ; pH(28°C): 4.5-5.5 ; Water: <12%; Viscosity: 35-45mpa]

TBS with Non-Fat Powdered Milk 3% #[GS4160](#); with BSA 1% #[GS4170](#), with Tween® 0.05% #[GS4200](#)

PBS with Non-Fat Powdered Milk 3% #[GS4180](#), with BSA 1% #[GS4190](#) , with Tween® 0.05% #[GS4250](#)

Antibody Diluent (Ready to Use) #[HH6690](#)

BioBlock membrane blocking agent #[N13660](#) (in PBS), #[N13650](#) (in TBS)

An economic standard blocker based on casein, optimized for nylon or PVDF membranes / blotting applications.

Tween® 20, pure #[15874A](#), oxidant free 20% solution [UP158740](#)

Great HRP substrates ([TMB solutions](#); [UptiLight ECL reagents](#))

Uptima secondary antibodies (i.e. Goat anti mouse-HRP #[UP446330](#))

For any question, please **ask Uptima** or your local distributor.

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