SuperBlock™ Blocking Buffers

Catalog Numbers 37580, 37515, 37516, 37518, 37581, 37535, 37536

Doc. Part No. 2160557 Pub. No. MAN0011288 Rev. C.0

WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from thermofisher.com/support.

Product description

Thermo Scientific™ SuperBlock™ blocking buffers contain a single purified non-relevant protein formulated in either phosphate-buffered saline (PBS) or Tris-buffer saline (TBS) for blocking excess binding sites in ELISA, immunohistochemistry, or western blotting applications. They are compatible with a wide range of antibodies, antibody combinations, and other protein probing and assay systems. SuperBlock™ blocking buffers do not contain albumin or endogenous biotin, and therefore are compatible biotin/avidin systems. For ease of use, SuperBlock™ T20 blocking buffers contain the detergent, Tween™-20 at 0.05%, which can improve blocking performance in many western blot detection systems.

Contents and storage

Product	Cat. No.	Amount	Storage
SuperBlock™ (PBS) Blocking Buffer, single purified protein in phosphate-buffered saline (pH 7.4)[1]	37580	100 mL	4°C
SuperBlock™ (PBS) Blocking Buffer, single purified protein in phosphate-buffered saline (pH 7.4)[1]	37515	1 L	
SuperBlock™ (PBS) Blocking Buffer, single purified protein in phosphate-buffered saline (pH 7.4)[1]	37518	5 L	
SuperBlock™ T20 (PBS) Blocking Buffer, single purified protein in phosphate-buffered saline (pH 7.4), with 0.05% Tween™-20 Detergent[1]	37516	1 L	
SuperBlock™ (TBS) Blocking Buffer, single purified protein in Tris-buffered saline (pH 7.4)[1]	37581	100 mL	
SuperBlock™ (TBS) Blocking Buffer, single purified protein in Tris-buffered saline (pH 7.4)[1]	37535	1 L	
SuperBlock™ T20 (TBS) Blocking Buffer, single purified protein in Tris-buffered saline (pH 7.4), with 0.05% Tween™-20 Detergent[1]	37536	1 L	

[1] Containing Kathon™ Antimicrobial Agent

Procedural guidelines

- Empirical testing is essential to determine the appropriate blocking reagent for your system. The proper blocking reagent can increase sensitivity and prevent non-specific signals caused by cross-reactivity between the antibody and the blocking reagent.
- SuperBlock™ blocking buffers are supplied in a ready-to-use format. However, other buffer concentrations may be beneficial for specific systems. For example, when using SuperBlock™ blocking buffer as a diluent for antibodies to improve signal-to-noise ratios, the buffer may be used as supplied or diluted up to 10-fold.
- A final concentration of 0.05% Tween™-20 Detergent in blocking buffer can improve blocking performance; however, it is not required nor recommended for all systems. Use only high-quality products such as Thermo Scientific™ Surfact-Amps™ 20 (Cat. No. 28320), which is a specially purified Tween™-20 Detergent that is free of peroxides and carbonyls that may interfere in some systems. SuperBlock™ T20 blocking buffers contain Tween™-20 Detergent at a concentration of 0.05%.
- SuperBlock™ blocking buffers can be used as a protein stabilizer for drying antigen- or antibody-coated microplates. Dry plate completely before sealing in a plastic bag with desiccant. Store plate at 4°C.

Block western blots

1. After the protein transfer, remove the membrane from the transfer apparatus, then wash in deionized water for 5 minutes, using agitation to remove all transfer buffer.
2. Add sufficient blocking buffer to cover the membrane.
3. Incubate for 10 minutes to 2 hours at room temperature with shaking.
4. Continue with the western blotting procedure that is appropriate for your downstream detection. Use the SuperBlock™ blocking buffer to dilute primary and secondary antibodies.

Block ELISA plates

Note: It is not necessary to add Tween™-20 to the blocking buffer when used for blocking ELISA plates. However to increase signal-to-noise ratio, we recommend using SuperBlock™ T20 blocking buffer when used as an antibody diluent.

1. Coat the ELISA plate with antigen or antibody.
2. Add 300 µL of SuperBlock™blocking buffer to each well, then immediately empty the plate by aspiration or inversion. Incubation is not required before emptying plate. Repeat this step two additional times.
3. Proceed with the ELISA protocol that is appropriate for your downstream detection.

   For storage, invert plate for approximately 2 hours to dry. Transfer plate to a plastic bag or other container containing a desiccant, such as silica gel. Store the plate at 4°C.

Block immunohistochemistry tissue

1. Add an appropriate volume of SuperBlock™ blocking buffer to the tissue, then incubate for 30 minutes at room temperature or 37°C.
2. Pour off the blocking buffer. Do not rinse the tissue.
3. Continue with the immunohistochemical detection procedure that is appropriate for your downstream detection.

Related products

Products	Learn more
Western blotting reagents and accessories	thermofisher.com/westernblot
Western blot imaging and analysis	thermofisher.com/westernimaging
ELISA reagents and kits	thermofisher.com/ELISA
ELISA plate readers	thermofisher.com/microplatereaders

Limited product warranty

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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

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Revision history: Pub. No. MAN0011288

Revision	Date	Description
C.0	7 September 2021	Updated format
B.0	23 April 2017	Updated content
A.0	17 October 2015	New document

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