

Technical Data Sheet

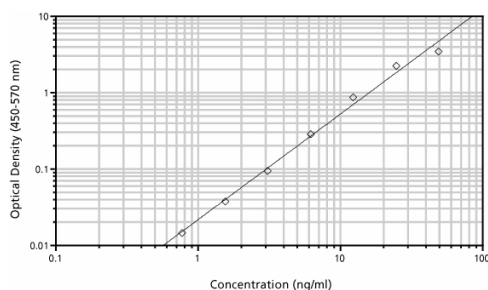
Purified Mouse C3a Protein (native)

Product Information

Material Number:	558618
Size:	10 Tests
Storage Buffer:	Lyophilized in an aqueous buffered solution containing BSA and ProClin™ 150.

Description

Purified Mouse C3a protein is a native protein isolated from activated mouse serum. Anaphylatoxin C3a is a bioactive cleavage product released from plasma component C3 during complement activation and is involved in mediation of a variety of cellular immune responses, as well as being a potent pro-inflammatory agent. The release of this cleavage product is a reliable indicator of *in vivo* or *in vitro* complement activation. Mouse C3a protein was isolated from activated mouse serum by affinity chromatography. This product can be reconstituted using 1 mL of Assay Diluent (Cat. No. 555213) or equivalent neutral buffer containing carrier protein, aliquoted into single-use aliquots and stored at -80°C. Avoid multiple freeze-thaws of the reconstituted protein. Each vial contains enough protein for ten 96-well plates. Failure to add carrier protein or store at indicated temperatures may result in a loss of activity. This product should not be diluted prior to long-term storage.



Representative Mouse C3a standard curve. The curve was generated by a sandwich ELISA using the purified I87-1162 antibody as capture antibody, doubling dilutions of purified mouse C3a protein as standard, and biotinylated I87-419 antibody as detection antibody. The standard curve is displayed as the concentration of purified mouse C3a in ng/mL versus the microwell absorbance.

Preparation and Storage

Store the lyophilized standard at 4°C prior to reconstitution.

Application Notes

Application

ELISA	Routinely Tested
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Recommended Assay Procedure:

The Mouse C3a protein is useful as a standard in a sandwich ELISA to measure mouse C3a protein levels. Purified anti-mouse C3a clone I87-1162 as capture antibody can be paired with the biotinylated I87-419 clone as the detection antibody. The purified antibody should be titrated between 1-4 µg/ml to determine the optimal ELISA plate-coating concentration. For plate coating, we recommend to use a pH 6.5 phosphate buffer. To obtain linear standard curves, doubling dilutions of purified mouse C3a protein ranging from 781 pg/mL to 50 ng/mL are recommended for inclusion in each ELISA plate. This ELISA antibody pair shows no cross-reactivity with the following: recombinant mouse C5a, native human C3a, C4a and C5a, and rat C5a. This ELISA antibody pair shows a limited cross-reactivity with rat C3a.

The amount of protein provided is listed on the vial label, record the batch number and the concentration of the reconstituted standard here and on the vial for future reference: _____ ng/mL.

Warning: Mouse C3a protein (Cat. No. 558618) contains 0.02% (w/w) of a CMIT/MIT mixture (3:1), which is a mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (3:1).

Hazard statements

May cause an allergic skin reaction.

Precautionary statements

Wear protective gloves / eye protection.

Wear protective clothing.

Avoid breathing mist/vapours/spray.

If skin irritation or rash occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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558618 Rev. 4



Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
558250	Purified Rat Anti-Mouse C3a	0.1 mg	187-1162
558251	Biotin Rat Anti-Mouse C3a	0.1 mg	187-419
555213	Assay Diluent	500 mL	(none)

Product Notices

1. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
2. ProClin is a trademark of Rohm and Haas Company.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Ember J.A, Jagels M.A., Hugli T.E. Characterization of complement anaphylatoxins and their biologic responses. In: Volenakis JE and Frank MM, ed. *The human complement system in health and disease*. New York: Marcel Dekker Inc; 1998:241-284. (Biology)

Hugli T.E. Structure and function of the anaphylatoxins. *Springer Semin Immunopathol*. 1984; 7:193-219. (Biology)

Hugli T.E. Structure and function of C3a anaphylatoxin. *Curr Top Microbiol Immunol*. 1990; 153:181-208. (Biology)

Volanakis J.E. Overview of the complement system. In: Volenakis JE and Frank MM, ed. *The human complement system in health and disease*. New York: Marcel Dekker Inc; 1998:9-32. (Biology)

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558618 Rev. 4

