

## Technical Data Sheet

## Purified Recombinant Mouse C5a

## Product Information

Material Number:	622597
Size:	10 Tests
Storage Buffer:	Lyophilized in an aqueous buffered solution containing BSA, ProClin™ 150 and ≤ 0.09% sodium azide.

## Description

Purified Mouse C5a is a recombinant protein. Anaphylatoxin C5a is a bioactive cleavage product released from plasma component C5 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 C5a protein was purified by affinity chromatography. This product can be reconstituted in 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.

## 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:

Recombinant Mouse C5a protein is useful as a standard in a sandwich ELISA that measures mouse C5a protein levels in plasma or serum samples. Purified I52-1486 Anti-Mouse C5a (Cat. No. 558027) as capture antibody can be paired with the biotinylated I52-278 Anti-Mouse C5a (Cat. No. 558028) as the detection antibody, using recombinant mouse C5a protein as standard. The purified I52-1486 antibody should be titrated between 1-4 µg/mL to determine the optimal ELISA plate-coating concentration. To obtain linear standard curves, doubling dilutions of recombinant mouse C5a protein ranging from 78 pg/mL to 5 ng/mL are recommended for inclusion in each ELISA plate. Addition of FUT-175 (Futhan, Cat. No. 552035) to plasma samples at the time of sample collection provides additional protection from ex-vivo activation, and therefore ensures more accurate measurements that reflect the circulating levels of complement activation products. This ELISA antibody pair shows no cross-reactivity with the following: recombinant mouse C3a, native human, and rat C5a.

The amount of protein provided is listed on the vial label, record the batch number and the concentration of the reconstituted protein here and on the vial of the single-use aliquots for future reference: \_\_\_\_\_ ng/mL.

**Warning:** Recombinant Mouse C5a (Cat. No. 622597) 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.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
558027	Purified Rat Anti-Mouse C5a	0.1 mg	I52-1486
558028	Biotin Rat Anti-Mouse C5a	0.1 mg	I52-278
555213	Assay Diluent	500 mL	(none)
552035	FUT-175 (Futhan)	5 mg	(none)

## Product Notices

- ProClin is a trademark of Rohm and Haas Company.

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2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

## References

Ember JA., Jagels MA., Hugli TE. Characterization of complement anaphylatoxins and their biological responses. In: J.E. Volanakis and M.M. Frank, ed. *The human complement system in health and disease*. Marcel Dekker, Inc; 1998:241-284. (Biology)

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

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

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