



Human C3a Anaphylatoxin (DAG4655)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Human C3a Anaphylatoxin
Antigen Description	Natural human C3a is prepared by cleavage of human C3 protein by a human C3 convertase. C3a is a member of the anaphylatoxin family of three proteins (C3a, C4a and C5a) produced by the activation of complement. It is an unglycosylated polypeptide containi
Species	Human
Purity	> 97% by SDS-PAGE
Conjugate	Unconjugated
Applications	immunogen
Format	Frozen liquid
Concentration	0.5 mg/ml (see Certificate of Analysis for the actual concentration)
Buffer	Phosphate buffered saline, pH 7.3 (No carrier proteins added)
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction	C3 is the most abundant protein of the complement system and redominantly synthesized by hepatocytes. C3 can be cleaved in two divalent fragments, where the letter "b" always indicates the larger fragment. C3b, which binds covalently to glycoproteins scattered across the cell surface. Macrophages and neutrophils have receptors for C3b and can bind the C3b-coated cell or particle preparatory to phagocytosis. This effect qualifies C3b as an opsonin. C3a is the
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smaller fragment that is released into the surrounding fluids. It can bind to receptors on basophils and mast cells triggering them to release their vasoactive contents (e.g., histamine). Because of the role of these materials in anaphylaxis, C3a is called an anaphylatoxin. An inherited deficiency of C3 predisposes patients to frequent bouts of bacterial infections. Complement C3a was found to be elevated in patients with chronic hepatitis C and HCV-related HCC.

Keywords	C3a; C3a (complement); component 3a
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