



Recombinant Protein Technical Manual

Recombinant Human Complement Component C3a/C3a Protein RPES0860

Product Data:

Product SKU: RPES0860

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P01024

Protein Information:

Molecular Mass: 9.1 kDa

AP Molecular Mass: 13 kDa

Tag:

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Complement Component C3a; C3a; Anaphylatoxin

Immunogen Information:

Sequence: Ser672-Arg748

Background:

Complement is defined as key part of innate immunity and as the first line of defense in the fight against invading pathogens. Complement 3 (C3) is the most abundant component of the complement cascade and the convergent point for all three major complement activation pathways: namely classical, alternative and mannose-binding lectin pathways. Complement activation leads to the formation of the C3 convertase, which cleaves C3 into the key effector molecules, C3a (anaphylatoxin) and C3b (opsonin) which then drive microbe removal. By binding to C3a receptor (C3aR), C3a exhibits potent anaphylatoxin activity, including increased vascular permeability, triggering degranulation of mast cells, inflammation, and activating leukocytes.