

Human C5a protein, His and Fc tag (active)

Cat. No. GTX00416-pro**Applications** Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

Complement Component 5a (C5a) is a component of the complement system which plays a key role in promoting migration and adherence of neutrophils and monocytes to vessel walls. C5a has been proven to be able to induce chemotactic migration of THP-1 cells. Therefore, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of C5a on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100 µl cell suspension, 10⁶ cells/ml in RPMI-1640 with 0.5% FBS) and C5a (50 and 100 ng/ml diluted separately in serum free RPMI-1640) was added in lower chamber with a polycarbonate filter (8 µm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO₂ for 2h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high magnification (×400) randomly (five fields for each filter). C5a is able to induce migration of THP-1 cells.

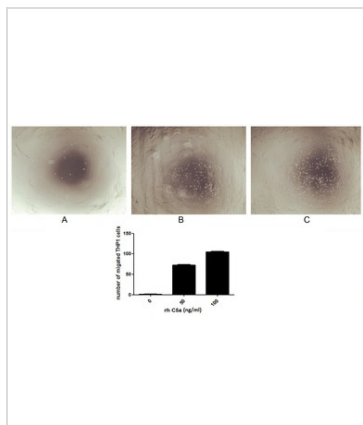
Observed MW (kDa) 44 kDa.

Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris (pH8.0) and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris (pH8.0), 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** His-Tag and Fc-Tag; Thr678~Arg751 (NP_001726.2)**Expression System** HEK293 cells**Purity** > 95%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

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DATA IMAGES



GTX00416-pro Functional Assay Image

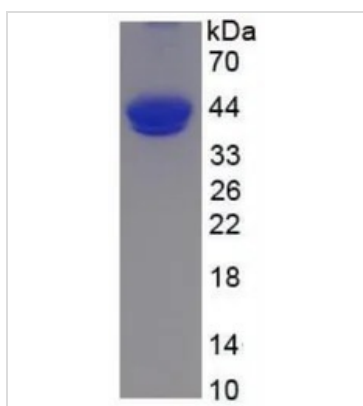
The chemotactic effect of GTX00416-pro Human C5a protein (active).

Upper: (A) THP-1 cells were seeded into the upper chambers and serum free RPMI-1640 without C5a was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 3hrs.

(B) THP-1 cells were seeded into the upper chambers and 50 ng/ml C5a was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 3hrs.

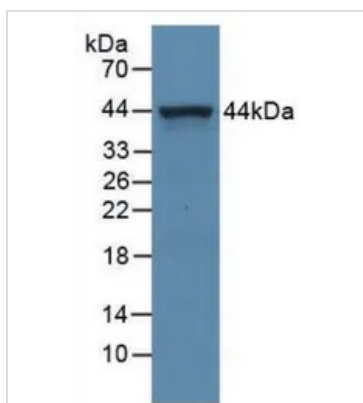
(C) THP-1 cells were seeded into the upper chambers and 100 ng/ml C5a was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 3hrs.

Lower: The number of migrated cells were counted at high magnification ($\times 400$) randomly (five fields for each filter).



GTX00416-pro Image

SDS-PAGE analysis of GTX00416-pro Human C5a protein (active).



GTX00416-pro Image

WB analysis of GTX00416-pro Human C5a protein (active).



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