

## Human C5a protein, His and Fc tag (active)

## Cat. No. GTX00416-pro

|              |                  |         |
|--------------|------------------|---------|
| Applications | Functional Assay | Package |
| Species      | Human            | 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, 10<sup>6</sup> 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% CO<sub>2</sub> 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

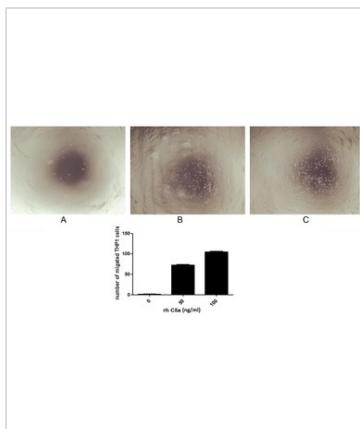
|                   |  |
|-------------------|--|
| Form              | Lyophilized powder   |
| Buffer            | Reconstitute with 20mM Tris (pH8.0) and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris (pH8.0), 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.   |
| Preservative      | 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

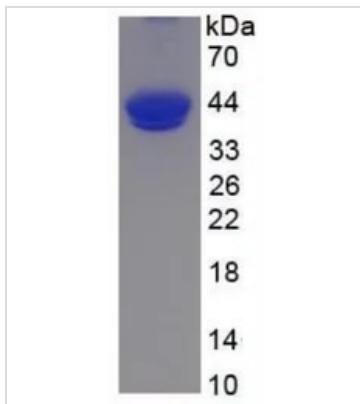
The chemotactic effect of GTX00416-pro Human C5a protein (active).

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.

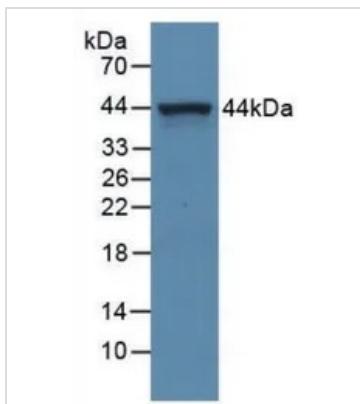
(C) THP-1 cells were seeded into the upper chambers and 100 ng/ml C5a was added in lower chamber, then cells in lower chamber were observed at low magnification ( $\times 100$ ) after incubation for 3hrs.

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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