

## MEGF10 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P76491
<b>Synonyms:</b>	Multiple epidermal growth factor-like domains protein 10; KIAA1780
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q96KG7-1 (L26-G857)
<b>Gene ID:</b>	84466
<b>Molecular Weight:</b>	Approximately 95-120 kDa due to the glycosylation.

### PROPERTIES

#### AA Sequence

L N L E D P N V C S	H W E S Y S V T V Q	E S Y P H P F D Q I	Y Y T S C T D I L N
W F K C T R H R V S	Y R T A Y R H G E K	T M Y R R K S Q C C	P G F Y E S G E M C
V P H C A D K C V H	G R C I A P N T C Q	C E P G W G G T N C	S S A C D G D H W G
P H C T S R C Q C K	N G A L C N P I T G	A C H C A A G F R G	W R C E D R C E Q G
T Y G N D C H Q R C	Q C Q N G A T C D H	V T G E C R C P P G	Y T G A F C E D L C
P P G K H G P Q C E	Q R C P C Q N G G V	C H H V T G E C S C	P S G W M G T V C G
Q P C P E G R F G K	N C S Q E C Q C H N	G G T C D A A T G Q	C H C S P G Y T G E
R C Q D E C P V G T	Y G V L C A E T C Q	C V N G G K C Y H V	S G A C L C E A G F
A G E R C E A R L C	P E G L Y G I K C D	K R C P C H L E N T	H S C H P M S G E C
A C K P G W S G L Y	C N E T C S P G F Y	G E A C Q Q I C S C	Q N G A D C D S V T
G K C T C A P G F K	G I D C S T P C P L	G T Y G I N C S S R	C G C K N D A V C S
P V D G S C T C K A	G W H G V D C S I R	C P S G T W G F G C	N L T C Q C L N G G
A C N T L D G T C T	C A P G W R G E K C	E L P C Q D G T Y G	L N C A E R C D C S
H A D G C H P T T G	H C R C L P G W S G	V H C D S V C A E G	R W G P N C S L P C
Y C K N G A S C S P	D D G I C E C A P G	F R G T T C Q R I C	S P G F Y G H R C S
Q T C P Q C V H S S	G P C H H I T G L C	D C L P G F T G A L	C N E V C P S G R F
G K N C A G I C T C	T N N G T C N P I D	R S C Q C Y P G W I	G S D C S Q P C P P
A H W G P N C I H T	C N C H N G A F C S	A Y D G E C K C T P	G W T G L Y C T Q R
C P L G F Y G K D C	A L I C Q C Q N G A	D C D H I S G Q C T	C R T G F M G R H C
E Q K C P S G T Y G	Y G C R Q I C D C L	N N S T C D H I T G	T C Y C S P G W K G
A R C D Q A G V I I	V G N L N S L S R T	S T A L P A D S Y Q	I G

#### Biological Activity

Measured in a cell proliferation assay using C2C12 cells. The ED<sub>50</sub> for this effect is 32.22 ng/mL, corresponding to a specific activity is 3.10×10<sup>4</sup> units/mg.

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

#### Endotoxin Level

<1 EU/μg, determined by LAL method.

<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

## DESCRIPTION

### Background

MEGF10 Protein, a membrane receptor, plays a pivotal role in phagocytosis by macrophages and astrocytes, particularly in the clearance of apoptotic cells. As a receptor for C1q, an eat-me signal, MEGF10 binds to phosphatidylserine on the surface of apoptotic cells, facilitating their engulfment. The protein collaborates with ABCA1 during this process and contributes to the formation of large intracellular vacuoles, potentially involved in the uptake of amyloid-beta peptides. In addition to its role in apoptotic cell clearance, MEGF10 is essential for astrocyte-mediated clearance of apoptotic neurons in the developing cerebellum. Furthermore, MEGF10 influences muscle cell proliferation, adhesion, and motility, playing a crucial role in the regulation of myogenesis and the balance between skeletal muscle satellite cell proliferation and differentiation through the notch signaling pathway. Additionally, MEGF10 may contribute to the mosaic spacing of specific neuron subtypes in the retina, ensuring an even distribution across the retina for comprehensive visual field processing. The protein forms homomers and interacts with GULP1, ABCA1, AP2M1, and NOTCH1, highlighting its multifaceted roles in various cellular processes.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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