Recombinant Human ASP/C3a desArg

Catalog Number: 9620-C3/CF

DESCRIPTION

Source	*E. coli*-derived human ASP/C3a desArg protein Ser672-Ala747 Accession # P01024
N-terminal Sequence Analysis	Ser672
Predicted Molecular Mass	9 kDa

SPECIFICATIONS

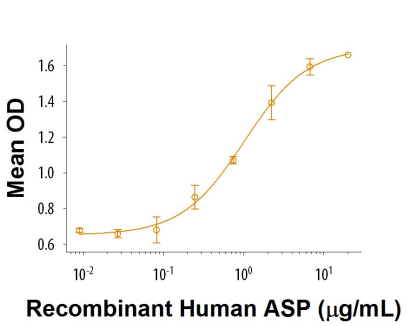
SDS-PAGE	9 kDa, reducing conditions
Activity	Measured by its ability to induce IL-6 secretion by LPS-stimulated human peripheral blood mononuclear cells (PBMC). The ED_{50} for this effect is 0.4-2.4 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity



Recombinant Human ASP/C3a desArg (Catalog # 9620-C3/CF) induces IL-6 secretion from LPS stimulated PBMCs. The ED_{50} for this effect is 0.4-2.4 µg/mL.

BACKGROUND

Acylation-stimulating protein (ASP), also known as C3adesArg, is an approximately 14 kDa member of the complement family that plays a role in the regulation of triglyceride synthesis (1-4). The secreted protein is a polypeptide fragment comprising amino acids (aa) 672-747 of the Complement C3 precursor protein (4). The polypeptide results from desargination of the carboxyl terminus of C3a, which is generated from interactions among C3, factor B, and adipsin (4). ASP contains a 36 aa anaphylatoxin-like domain (5). Human ASP shares 68% sequence identity with mouse and rat ASP. Increased levels of ASP are usually associated with insulin resistance, obesity and diabetes. It promotes triacylglycerol synthesis in adipocytes and inflammatory cytokine production in a septic environment (6-8).

References:

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4. Cianflone, K. *et al.* (2003) Biochim. Biophys. Acta. **1609**:127.
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7. Munkonda, M. N. *et al.* (2012) PLOS One. **7(10)**:1.
8. Takabayashi, T. *et al.* (1998) JID. **177**:1622.

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