

PRODUCT DATA SHEET A XKine[™] Product

Recombinant Human Adiponectin

Product Description

Adiponectin is an adipose-derived secreted protein containing 226 amino acid residues. It is relatively abundant in humans and rodents, accounting for about 0.01% of total plasma protein. The circulating levels of adiponectin are decreased under conditions of obesity, insulin resistance, and type II diabetes. Disruption of adiponectin in mice causes insulin resistance and neointimal formation. Conversely, administration of recombinant adiponectin suppresses hepatic glucose production, and reverses insulin resistance associated with both lipoatrophy and obesity. The protective role of adiponectin is attributed to its anti-inflammatory properties (e.g. ability to suppress expression of TNF-α and class A scavenger receptor in macrophages). Recombinant adiponectin is a multimeric glycoprotein containing amino acids Glu-19 to Asn-244 of the adiponectin precursor protein fused to an Nterminal histidine tag.

Typical Specifications

Species Human

Expression Insect Cell Expressed

Activity Typically 3.0-6.0 μg/ml ED₅₀

Purity ≥97%

Endotoxin <1.0 EU/μg

Molecular Mass 25.9 kDa

Formulation 10mM Tris, pH 8.5 + 75mM

L-Arginine

Country of Origin USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by a cytotoxic assay using M1 cells.

AA Sequence

RGHHHHHHHH	ETTTQGPGVL	LPLPKGACTG
WMAGIPGHPG	HNGAPGRDGR	DGTPGEKGEK
GDPGLIGPKG	DIGETGVPGA	EGPRGFPGIQ
GRKGEPGEGA	YVYRSAFSVG	LETYVTIPNM
PIRFTKIFYN	QQNHYDGSTG	KFHCNIPGLY
YFAYHITVYM	KDVKVSLFKK	DKAMLFTYDQ
YQENNVDQAS	GSVLLHLEVG	DQVWLQVYGE
GERNGLYADN	DNDSTFTGFL	LYHDTN

Reconstitution Buffer

Reconstitute in water to a concentration of 1.0 mg/ml. Allow the reconstituted vial to sit at room temperature for 1 hour before use. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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