Recombinant Human CTRP3/C1qTNF3/CORS26

Catalog Number: 9398-TN

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Gln23-Lys246 Accession # Q9BXJ4-1
N-terminal Sequence Analysis	No results obtained. Gln23 inferred from enzymetic pyroglutamate treatment revealing Asp24
Structure / Form	Disulfide-linked homo-oligomer
Predicted Molecular Mass	24 kDa

SPECIFICATIONS

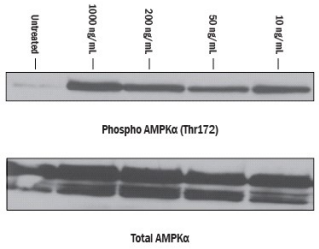
SDS-PAGE	25-37 kDa, reducing conditions
Activity	Measured by its ability to induce phospho AMPK activation in C2C12 mouse differentiated myocytes. 300 ng/ml of Recombinant Human CTRP3/C1qTNF3/CORS26 induces phosphorylation of AMPK.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, 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 with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS containing at least 0.1% human or bovine serum albumin.
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 CTRP3/C1qTNF3/CORS26 Induces Phosphorylation of AMPK in C2C12 Differentiated Myocytes. C2C12 differentiated myocytes were treated with Recombinant Human CTRP3/C1qTNF3/CORS26 (Catalog # 9398-TN) for 1 hour prior to Western blot analysis.

BACKGROUND

CORS-26 (collagenous repeat-containing sequence of 26 kDa protein) also known as C1qTNF3 (complement C1q TNF-related protein 3/CTRP3), cartonectin, cartducin, is a 30-32 kDa, secreted member of the C1q and TNF-related (CTRP) superfamily of molecules (1). The mature protein is 224 aa in length. It contains an N-terminal collagen-like domain followed by a C-terminal globular region. Human CORS26 shares 99% aa sequence identity with the mouse CORS26 (2). Like other CTRP members, CORS26 has a trimeric structure and can assemble into hexameric or higher order molecular forms (3). It is expressed by a variety of cells, including adipocytes, cartilage, fibroblasts, monocytes and proliferating chondrocytes (4). The inflammatory effects of LPS, TLR-4 and fatty acids have been shown to be inhibited by CORS26 in adipocytes and monocytes (5). In mouse models, CORS26 has been shown to lower glucose levels and decrease gluconeogenic gene expression (6). Inhibition of 3T3-L1 pre-adipocyte differentiation to adipocytes is associated with CORS26 treatment, demonstrating potential anti-obesity effects (7). Treatment with CORS26 results in the proliferation of skeletal muscle C2C12 cells and inhibition of C2C12 myotube differentiation, mediated by the ERK pathway (8). Due to the variety of functions in metabolism and inflammation, CORS26 is a potential new target of type 2 diabetes treatment.

References:

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