32-20413: Recombinant Human/Murine/Rat Myostatin(Discontinued)

Reactivity :   Human, Mouse, Rat

Alternative Name : GDF-8

Description

Source:E.coli Myostatin is a TGF-Beta family member that acts as an inhibitor of skeletal muscle growth. This muscle-specific cytokine interacts with Activin type I and type II receptors, and suppresses myoblast proliferation by arresting cell-cycle in the G1 phase. Suppression of myostatin activity facilitates muscle formation, and may be useful in reducing and/or preventing adiposity and type-2 diabetes. Myostatin activity can be blocked by the activin-binding protein follistatin, and by the propeptide of myostatin. Recombinant Human/Murine/Rat Myostatin is a 25.0 kDa protein consisting of two identical 109 amino acid polypeptides linked by a single disulfide bond. The amino acid sequence of mature myostatin is extremely conserved across species, and is the same in murine, rat, chicken, turkey, porcine, and human. Myostatin is expressed as the C-terminal part of a precursor polypeptide, which also contains a short N-terminal signal sequence for secretion, and a propeptide of 243 amino acids. After dimerization of this precursor, the covalent bonds between the propeptide and the mature ligand are cleaved by furin-type proteases. However, the resulting two proteins remain associated through non-covalent interactions, and are secreted as a latent complex.

Product Info

Amount :   2 µg / 10 µg

Purification : Purity:>= 98% by SDS-PAGE gel and HPLC analyses.

Content :   This recombinant protein is supplied in lyophilized form.

Amino Acid :   DFGLDCDEHS TESRCCRYPL TVDFEAFGWD WIIAPKRYKA NYCSGECEFV FLQKYPHTHL VHQANPRGSA GPCCTPTKMS PINMLYFNGK EQIIYGKIPA MVVDRCGCS

Application Note

Determined by its ability to inhibit the proliferation of MPC-11 cells. The expected ED$_{50}$ for this effect is 17.0-25.0 ng/ml.