

**Datasheet for 009-001-W01-1000****rHuman Myostatin Protein****Overview**

<b>Description:</b>	Human Myostatin Recombinant Protein - 009-001-W01-1000
<b>Item No.:</b>	009-001-W01-1000
<b>Size:</b>	1 mg
<b>Applications:</b>	SDS-PAGE, Cellular Assay
<b>Origin:</b>	Human
<b>Expressed in:</b>	E. coli

**Product Details**

<b>Background:</b>	Myostatin is a member of the TGF- $\beta$ superfamily that is essential for proper regulation of skeletal muscle mass in a number of species ranging from fish to humans. Myostatin is a secreted protein that negatively regulates skeletal muscle mass determining both muscle fiber number and size. Inhibition of myostatin can increase muscle mass in a number of animal models of human disease, including muscular dystrophy. Recombinant human Myostatin is a non-glycosylated homodimer, containing two 109 amino acid chains, with a total molecular weight of 24.8 kDa.
<b>Synonyms:</b>	GDF-8, Myostatin
<b>Species of Origin:</b>	Human
<b>Expressed in:</b>	E. coli
<b>Type:</b>	Recombinant Protein
<b>Low Endotoxin:</b>	Yes

**Target Details**

<b>Gene Name:</b>	Mstn
<b>Purity/Specificity:</b>	Myostatin purity was determined to be greater than 95% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-PAGE.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - O14793</a></li></ul>

## Application Details

<b>Tested Applications:</b>	SDS-PAGE
<b>Suggested Applications:</b>	Cellular Assay (Based on references)
<b>Application Note:</b>	Myostatin Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Myostatin in immunological assays.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>Other:</b>	Endotoxin Level: Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein. Biologic Activity: The activity is determined by the inhibition of the proliferation of MPC-11 cells and is typically less than 20 ng/mL.

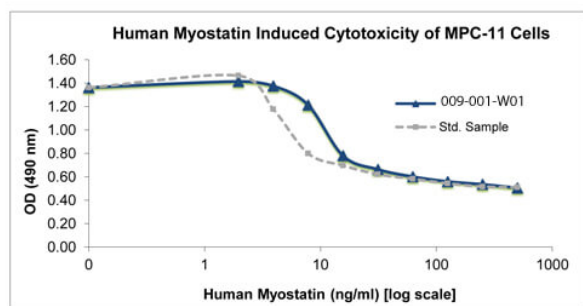
## Formulation

<b>Physical State:</b>	Lyophilized
<b>Buffer:</b>	0.1% Trifluoroacetic acid
<b>Preservative:</b>	None
<b>Stabilizer:</b>	None
<b>Reconstitution Volume:</b>	1.0 mL
<b>Reconstitution Buffer:</b>	0.02M HCl

## Shipping & Handling

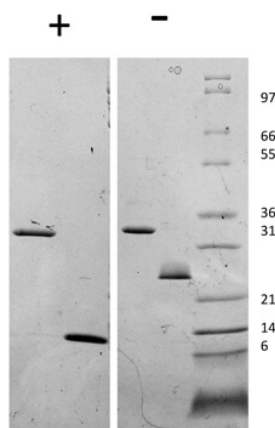
<b>Shipping Condition:</b>	Ambient
<b>Storage Condition:</b>	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
<b>Expiration:</b>	Expiration date is six (6) months from date of receipt.

## Images



#### SDS-PAGE

Bioactivity of Human Myostatin Recombinant Protein. MPC-11 cells were cultured with 0 to 500 ng/mL Human Myostatin. Cell viability was measured after 66 hours and the linear portion of the curve was used to calculate the ED50. The ED50 of Human Myostatin is 9.6-14.4 ng/mL. This value is expected to be less than 20 ng/mL.



#### SDS-PAGE

SDS-PAGE of Human Myostatin Propeptide and Myostatin Recombinant Protein. Lane 1: 1 µg Human Myostatin Propeptide in reducing conditions (+). Lane 2: 1 µg Human Myostatin in reducing conditions (+). Lane 3: 1 µg Human Myostatin Propeptide in non-reducing conditions (-). Lane 4: 1 µg Human Myostatin in non-reducing conditions (-). Lane 5: Molecular weight marker. Human Myostatin Propeptide is predicted to be a disulfide-linked homodimer of 27.8 kDa and Myostatin is predicted to be a non-covalently linked homodimer with a MW of 25 kDa .

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.