

Datasheet for 009-001-W02-0005**rHuman Myostatin Propeptide Protein****Overview**

Description:	Human Myostatin Propeptide Recombinant Protein - 009-001-W02-0005
Item No.:	009-001-W02-0005
Size:	5 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Myostatin (GDF-8), a member of the TGF- β superfamily, is a potent and specific negative regulator of skeletal muscle mass. The myostatin propeptide is known to bind and inhibit myostatin in vitro. This interaction is relevant in vivo, with a majority (>70%) of myostatin in serum bound to its propeptide acting as a negative regulator of myostatin. Recombinant human Myostatin Propeptide is a non-glycosylated protein, containing 244 amino acids, with a molecular weight of 27.8 kDa.
Synonyms:	Myostatin
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	MSTN
Purity/Specificity:	Myostatin propeptide 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.
Relevant Links:	• UniProtKB - O08689

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Myostatin Propeptide Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Myostatin Propeptide in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/ μ g protein. Biologic Activity: The activity is determined by its ability to inhibit 50 ng/mL of Myostatin on MPC-11 cells and is typically 0.01-0.04 μ g/mL.

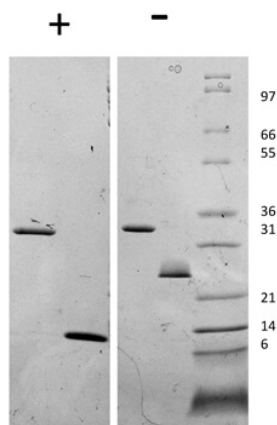
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	5 μ l (5-50 μ l)
Reconstitution Buffer:	0.02M HCl

Shipping & Handling

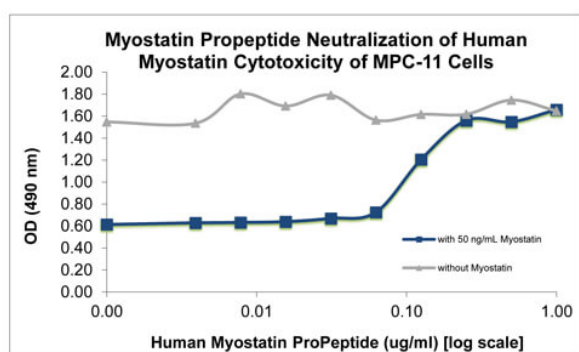
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results 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.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

SDS-PAGE of Human Myostatin Propeptide and Myostatin Recombinant Protein. Lane 1: 1 μ g Human Myostatin Propeptide in reducing conditions (+). Lane 2: 1 μ g Human Myostatin in reducing conditions (+). Lane 3: 1 μ g Human Myostatin Propeptide in non-reducing conditions (-). Lane 4: 1 μ g 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 .



SDS-PAGE

Bioactivity of Human Myostatin Propeptide Recombinant Protein. MPC-11 cells were cultured with 50 ng/mL Human Myostatin and serial dilutions of Human Myostatin Propeptide from 0-1 μ g/mL. Cell proliferation was measured after 65 hours and the linear portion of the curve was used to calculate the ED50. The ED50 of Human Myostatin Propeptide is 0.09-0.14 μ g/mL. This typical expected value for this activity is 10-40 ng/mL.

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.