

Human HMGN3 Protein (His Tag)

Catalog Number: 13914-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

PNAS-24; PNAS-25; TRIP7; 1110002A15Rik; 6330514M13Rik; BB071015; TRIP7

Protein Construction:

A DNA sequence encoding the mature form of human HMGN3 (Q15651-2) (Met1-Asn77) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human HMGN3 consists of 92 amino acids and predicts a molecular mass of 10.2 KDa. It migrates as an approximately 16 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 50mM Arg, 10% glycerol, pH 8.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

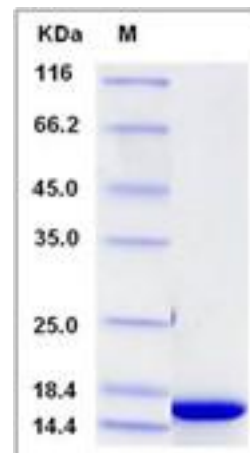
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

HMGN3 belongs to the HMGN family and is expressed in kidney, lung, pancreas, testis, skeletal muscle, heart, thyroid gland, pituitary gland, prostate and uterus. Members of the HMGN family bind to nucleosomes without any specificity for the underlying DNA sequence. They affect the global and local structure of chromatin, as well as the levels of histone modifications and thus play a role in epigenetic regulation of gene expression. HMGN3 regulates the expression of the glucose transporter SLC2A2 by binding specifically to its promoter region and recruiting PDX1 and additional transcription factors. It also regulates the expression of SLC6A9, a glycine transporter which regulates the glycine concentration in synaptic junctions in the central nervous system, by binding to its transcription start site. Both insulin and glucagon levels can be affected by HMGN3. HMGN3 may play a role in ocular development and astrocyte function. It also modulates the expression of pancreatic genes involved in insulin secretion.

References

1. Ueda T, *et al.* (2009) The nucleosome binding protein HMGN3 modulates the transcription profile of pancreatic beta cells and affects insulin secretion. *Mol Cell Biol.* 29(19):5264-76.
2. Lei SF, *et al.* (2012) Genome-wide association study identifies HMGN3 locus for spine bone size variation in Chinese. *Hum Genet.* 131(3):463-9.
3. Kim W, *et al.* (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. *Mol Cell.* 44(2):325-40.

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