

Recombinant Human HMGB1-EGFP Protein

Catalog No.: RP01737 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3146	P09429

Tags

C-6His

Synonyms

HMGB1; HMGB3; HMG-1; SBP-1; HMGB1-EGFP

Product Information

Source	Purification
HEK293 cells	

Endotoxin

< 0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

Background

High-mobility group box 1 protein (HMGB1), also known as HMG-1 or amphoterin previously, is a member of the HMGB family consisting of three members, HMGB1, HMGB2, and HMGB3. HMGB1 is a DNA-binding nuclear protein, released actively following cytokine stimulation as well as passively during cell death. It is the prototypic damage-associated molecular pattern (DAMP) molecule and has been implicated in several inflammatory disorders. As a non-histone nuclear protein, HMGB1 has a dual function. Inside the cell, HMGB1 binds DNA, regulating transcription, and determining chromosomal architecture. Outside the cell, HMGB1 can serve as an alarmin to activate the innate system and mediate a wide range of physiological and pathological responses. Extracellular HMGB1 represents an optimal "necrotic marker" selected by the innate immune system to recognize tissue damage and initiate reparative responses. However, extracellular HMGB1 also acts as a potent pro-inflammatory cytokine that contributes to the pathogenesis of diverse inflammatory and infectious disorders. HMGB1 has been successfully therapeutically targeted in multiple preclinical models of infectious and sterile diseases including arthritis. As shown in studies on patients as well as animal models, HMGB1 can play an important role in the pathogenesis of the rheumatic disease, including rheumatoid arthritis, systemic lupus erythematosus, and polymyositis among others. Besides, enhanced postmyocardial infarction remodeling in type 1 diabetes mellitus was partially mediated by HMGB1 activation.

Basic Information

Description

Recombinant Human HMGB1-EGFP Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence ((Met1-Glu215)GGGS3 EGFP) of human HMGB1-EGFP (Accession #NP_002119.1) fused with and a 6×His tag at the C-terminus.

Bio-Activity

Storage

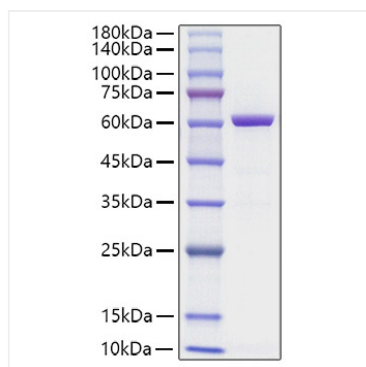
Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

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Validation Data



Recombinant Human HMGB1-EGFP
Protein was determined by SDS-PAGE with
Coomassie Blue, showing a band at 54 kDa.