

Recombinant Human High Mobility Group Box-1 Protein, His

#R00529

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Human High-mobility group box 1 protein (HMGB1), previously known as HMG-1 or amphoterin, is a member of the high mobility group box family of non-histone chromosomal proteins. Human HMGB1 is expressed as a 30 kDa, 215 amino acid (a.a.) single chain polypeptide containing three domains: two N-terminal globular, 70 a.a. positively charged DNA-binding domains (HMG boxes A and B), and a negatively charged 30 a.a. C-terminal region that contains only Asp and Glu. 4, 5 Residues 27 - 43 and 178 - 184 contain a NLS. Posttranslational modifications of the molecule have been reported, with acetylation occurring on as many as 17 lysine residues. HMGB1 is expressed at high levels in almost all cells. It was originally discovered as a nuclear protein that could bend DNA. Such bending stabilizes nucleosome formation and regulates the expression of select genes upon recruitment by DNA binding proteins.

AA Sequence

MGKGDPKKPRGKMSSYAFFVQTCREEHKKKHPDAS
VNFSEFSKKCSERWKTMSAKEKGKFEDMAKADKAR
YEREMKTYIPPKGETKKKFKDPNAPKRPPSAFFLFC
EYRPKIKGEHPGLSIGDVAKKLGEMWNNTAADDKQP
YEKKAARKLKEKYEKDIAAYRAKGKPDAAKKGVVKA
EKKKKKEEEEEDEEDEDEEEEEDEEDEDEEEDDDDEL
EHHHHHH

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Sentrin-2, SMT3B, SMT3H2
Accession	P09429
GeneID	3146
Species	Human
Source	Escherichia coli.
Tags	His
Molecular Weight	Approximately 26.0 kDa, a single non-glycosylated polypeptide chain containing 223 amino acids with 6 × His at C-terminus.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Data not available.
Physical Appearance	Sterile Filtered White Lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in

PBS, pH 7.4.

Endotoxin Less than 1 EU/μg of
rHuHMGB1, His as determined
by LAL method.
