

Human (mammalian cell expression) recombinant HMGB1 C23AC45AC106A protein, AF

Catalog Number: PROTP09429-5

Overview

Product Name	Human (mammalian cell expression) recombinant HMGB1 C23AC45AC106A protein, AF
Description	High Mobility Group protein B1 protein (HMGB1) is the high mobility group box family of non-histone chromosomal proteins. Human HMGB1 is expressed as a 25 kDa single chain polypeptide containing three domains: two N-terminal HMG boxes A and B, and a negatively charged 30 a.a. C-terminal region that contains only Asp and Glu. Post-translational modification on HMGB1 have been reported, affect its localization, receptor interactions, and function. HMGB1, with a disulfide bond between C23 and C45, have been reported that cause cytokine production and the activation of NF-kappaB. Otherwise, the fully oxidized form has no immune function, losing its proinflammatory effect and the apoptotic cell death activation function. Here, we developed HMGB1 C23A, C45A & 10?A mutant proteins, the fully oxidized HMGB1, eliminant the disulfide bond formation.
Size	5ug,20ug,100ug
Tag	His-SUMO Tag (N-term)
Form	Lyophilized
Source	HEK293 cell
Formulation	The protein was lyophilized from a 0.2 um filtered solution containing 1X PBS, pH 7.4. If you have any concerns or special requirements, please confirm with us.

Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

Purity

>98% as determined by SDS-PAGE.

Molecular weight

The protein has a calculated MW of 36.33 kDa. The protein migrates as 35-48 kDa under reducing condition (SDS-PAGE analysis).

Activity

Measure by its ability to induce TNF alpha in RAW264.7 cells. The ED₅₀ for this effect is <10 ug/mL.

Endotoxin

<0.1 EU per 1 ug of the protein by the LAL method.

Amino Acid Sequence

MGKGDPPKPRGKMSSYAFFVQTAREEHKKKHPDASVNFSEFSKKASERWKTMSAKEKGFEDMAKADKARYEREMKTYIPPKGETKKKFKDPNAPK
RPPSAFFLFASEYRPKIKGEHPGLSIGDVAKKLGEMWNNTAADDKQPYEKKAACLKEKYEKDIAAYRAKGPDAAKKGVVKAESKSKKKEEEDEEDE
EDEEEDEEDEDEEEDDDDE with polyhistidine-SUMO tag at the N-terminus

Reconstitution

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H₂O to a concentration not less than 100 ug/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

Usage

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