Recombinant Human HIST3H2A/Histone H2A Protein

Catalog Number: PKSH031352

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

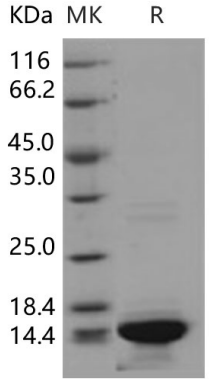
Description

Species	Human
Source	E.coli-derived Human HIST3H2A/Histone H2A protein Met 1-Lys 130
Calculated MW	14.2 kDa
Observed MW	14.2 kDa
Accession	NP_254280.1
Bio-activity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM β-Mercaptoethanol, pH 6.9 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Histones are a complex family of highly conserved basic proteins responsible for packaging chromosomal DNA into nucleosomes. There are subtype diversities: H1, H2A, H2B and H3 or H4. It has become more and more evident that histone modifications are key players in the regulation of chromatin states and dynamics as well as in gene expression. Therefore, histone modifications and the enzymatic machineries that set them are crucial regulators that can control cellular proliferation, differentiation, plasticity, and malignancy processes. However, extracellular histones are a double-edged sword because they also damage host tissue and may cause death. Histones bound to platelets, induced calcium influx, and recruited plasma adhesion proteins such as fibrinogen to induce platelet aggregation. Histone cluster 3, H2a also known as histone H2A (HIST3H2A) is a member of histones. Covalent modification of histones is important in regulating chromatin dynamics and transcription. One example of such modification is ubiquitination, which mainly occurs on histones H2A and H2B. E3 ubiquitin ligase complex is specific for histone H2A (HIST3H2A). Reducing the expression of Ring2 results in a dramatic decrease in the level of ubiquitinated H2A in HeLa cells. DNA damage induces monoubiquitylation of histone H2A (HIST3H2A) in the vicinity of DNA lesions.