



Recombinant Protein Technical Manual

**Recombinant Human HIST3H2A/Histone H2A
Protein
RPES5097**

Product Data:

Product SKU: RPES5097

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: NP_254280.1

Protein Information:

Molecular Mass: 14.2 kDa

AP Molecular Mass: 14.2 kDa

Tag:

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: MGC3165

Immunogen Information:

Sequence: Met 1-Lys 130

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.