Data Sheet (Cat.No.TMPY-02580)

TargetMol

Histone H1 Protein, Human, Recombinant (His)

General Information

Synonyms:	HSP60;HSP65;CPN60;H1 histone family, member 0;H10;HLD4;HSPD1;HuCHA60;H1FV;SPG13;GROEL
Protein Construction:	A DNA sequence encoding the human H1F0 (P07305) (Met 1-Lys 194) was expressed, with a polyhistide tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P07305
Molecular Weight:	22.4 kDa (predicted); 27 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 92 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 600 mM NaCl, 1 mM DTT, pH 8.5. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

H1 histone family, member 0 (H1F0) is a member of the H1 histone family of nuclear proteins which are a component of chromatin in eukaryotic cells. It's involved in maintaining the structure of chromatin by packing the "beads on a string" sub-structure into a high order structure. The lysine-rich H1 histone family in mammals includes eleven members. In higher eukaryotes, all H1 variants have the same general structure, consisting of a central conserved globular domain and less conserved N-terminal and C-terminal tails. These tails are moderately

conserved among species, but differ among variants, suggesting a specific function for each H1 variant. Studies on the role of particular subtypes at specific developmental stages in lower eukaryotes, but also in vertebrates suggest that specific subtypes of H1 participate in particular systems of gene regulation.

Reference

Ramakrishnan V,et al. (1993) Crystal structure of globular domain of histone H5 and its implications for nucleosome binding. Nature. 362 (6417): 219-23.

Happel N,et al. (2009) Histone H1 and its isoforms: contribution to chromatin structure and function. Gene. 431 (1-2): 1-12.

Izzo A,et al. (2008) The histone H1 family: specific members, specific functions. Biol Chem. 389 (4): 333-43.