

# Immunotag™ Histone H4 (Acetyl Lys12) Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| Catalog No.            | ITK0013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product Description    | Immunotag™ Histone H4 (Acetyl Lys12) Polyclonal Antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Size                   | 50 µg, 100 µg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 647                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be returned and is not eligible for return.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Target Protein         | Histone H4 (Lys12)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Clonality              | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Application            | WB,IHC-p,IF,ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. Other applications: 1/100 - 1/1000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Reactive Species       | Human,Mouse,Rat,Monkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Host Species           | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Immunogen              | Synthesized acetyl-peptide derived from Histone H4 (Acetyl Lys12), at AA range: 10-90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Specificity            | Acetyl-Histone H4 (K12) Polyclonal Antibody detects endogenous levels of Histone H4 protein only when acetylated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific resin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Form                   | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Gene Name              | HIST1H4A/HIST1H4B/HIST1H4C/HIST1H4D/HIST1H4E/HIST1H4F/HIST1H4H/HIST1H4I/HIST1H4J/HIST1H4K/HIST1H4L/HIST1H4M/HIST1H4N/HIST1H4O/HIST1H4P/HIST1H4Q/HIST1H4R/HIST1H4S/HIST1H4T/HIST1H4U/HIST1H4V/HIST1H4W/HIST1H4X/HIST1H4Y/HIST1H4Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Accession No.          | P62805 P62806 P62804                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Alternate Names        | HIST1H4A; H4/A; H4FA; HIST1H4B; H4/I; H4FI; HIST1H4C; H4/G; H4FG; HIST1H4D; H4/B; H4FB; HIST1H4E; H4/H; H4FH; HIST1H4I; H4/M; H4FM; HIST1H4J; H4/E; H4FE; HIST1H4K; H4/D; H4FD; HIST1H4L; H4/O; H4FO; HIST1H4M; H4/N; H4FN; HIST1H4O; H4/P; H4FO; HIST1H4P; H4/Q; H4FP; HIST1H4Q; H4/R; H4FR; HIST1H4R; H4/S; H4RS; HIST1H4S; H4/T; H4TS; HIST1H4T; H4/U; H4TU; HIST1H4U; H4/V; H4TV; HIST1H4V; H4/W; H4TW; HIST1H4W; H4/X; H4TX; HIST1H4X; H4/Y; H4TY; HIST1H4Y; H4/Z; H4TZ; HIST1H4Z; H4/A; H4FA; HIST1H4B; H4/I; H4FI; HIST1H4C; H4/G; H4FG; HIST1H4D; H4/B; H4FB; HIST1H4E; H4/H; H4FH; HIST1H4I; H4/M; H4FM; HIST1H4J; H4/E; H4FE; HIST1H4K; H4/D; H4FD; HIST1H4L; H4/O; H4FO; HIST1H4M; H4/N; H4FN; HIST1H4O; H4/P; H4FO; HIST1H4P; H4/Q; H4FP; HIST1H4Q; H4/R; H4FR; HIST1H4R; H4/S; H4RS; HIST1H4S; H4/T; H4TS; HIST1H4T; H4/U; H4TU; HIST1H4U; H4/V; H4TV; HIST1H4V; H4/W; H4TW; HIST1H4W; H4/X; H4TX; HIST1H4X; H4/Y; H4TY; HIST1H4Y; H4/Z; H4TZ; HIST1H4Z |

## Antibody Specification

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| Description                 | histone cluster 1 H4 family member i(HIST1H4I) Homo sapiens Histones are basic nuclear proteins that structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The link between nucleosomes and functions in the compaction of chromatin into higher order structures. This is a replication-dependent histone that is a member of the histone H4 family. Transcripts from this gene lack a palindromic termination element. This gene is found in the histone microcluster on chromosome 6p21.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Cell Pathway/<br>Category   | Protein_Acetylation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Protein<br>Expression       | B-cell lymphoma,Bone marrow,Brain,Clones donated by HIP,Corpus call                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Subcellular<br>Localization | nuclear chromosome,nuclear chromosome, telomeric region,nucleosome,extracellular region,nucleus,nucleolar matrix,protein complex,extracellular exosome,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Protein Function            | function:Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting machineries which require DNA as a template. Histones thereby play a central role in transcription regulation and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications and nucleosome remodeling.,PTM:Acetylation at Lys-6, Lys-9, Lys-13 and Lys-17 occurs in coding region of heterochromatin.,PTM:Citrullination at Arg-4 by PADI4 impairs methylation.,PTM:Monomethylated, dimeric Monomethylation is performed by SET8. Trimethylation is performed by SUV420H1 and SUV420H2 and silencing.,PTM:Monomethylation at Arg-4 by PRMT1 favors acetylation at Lys-9 and Lys-13. Demethylation by JMJD6.,PTM:Sumoylated, which is associated with transcriptional repression.,PTM:Ubiquitinated by the CUL5 complex after ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to other proteins.,similarity:Belongs to the histone H4 family.,subunit:The nucleosome is a histone octamer composed of two molecules of H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps DNA. |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |