

## Immunotag™ SPT16 Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog No.            | ITT4388                                                                                                                                                                                                                       |
| Product Description    | Immunotag™ SPT16 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® 594, 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 cancelled from an order and is not eligible for return.                                                            |
| Target Protein         | SPT16                                                                                                                                                                                                                         |
| Clonality              | Polyclonal                                                                                                                                                                                                                    |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                  |
| Application            | WB,IHC-p,ELISA                                                                                                                                                                                                                |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.                                                                                                      |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                       |
| Reactive Species       | Human,Mouse                                                                                                                                                                                                                   |
| Host Species           | Rabbit                                                                                                                                                                                                                        |
| Immunogen              | The antiserum was produced against synthesized peptide derived from human SUPT16H. AA range:941-990                                                                                                                           |
| Specificity            | SPT16 Polyclonal Antibody detects endogenous levels of SPT16 protein.                                                                                                                                                         |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                                                                                          |
| Form                   | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                       |
| Gene Name              | SUPT16H                                                                                                                                                                                                                       |
| Accession No.          | Q9Y5B9 Q920B9                                                                                                                                                                                                                 |
| Alternate Names        | SUPT16H; FACT140; FACTP140; FACT complex subunit SPT16; Chromatin-specific transcription elongation factor 140 kDa subunit; FACT 140 kDa subunit; FACTp140; Facilitates chromatin transcription complex subunit SPT16; hSPT16 |

## Antibody Specification

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description              | SPT16 homolog, facilitates chromatin remodeling subunit(SUPT16H) Homo sapiens<br>Transcription of protein-coding genes can be reconstituted on naked DNA with only the general transcription factors and RNA polymerase II. However, this minimal system cannot transcribe DNA packaged into chromatin, indicating that accessory factors may facilitate access to DNA. One such factor, FACT (facilitates chromatin transcription), interacts specifically with histones H2A/H2B to effect nucleosome disassembly and transcription elongation. FACT is composed of an 80 kDa subunit and a 140 kDa subunit; this gene encodes the 140 kDa subunit. [provided by RefSeq, Feb 2009],                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Protein Expression       | Brain,Epithelium,Eye,Hepatoma,Kidney,Lung c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Subcellular Localization | nucleus,nucleoplasm,chromosome,FACT complex,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Protein Function         | caution:Although related to the peptidase M24 family, this protein lacks conserved active site residues suggesting that it may lack peptidase activity.,domain:The Glu-rich acidic region in C-terminus is essential for FACT activity.,function:Component of the FACT complex, a general chromatin factor that acts to reorganize nucleosomes. The FACT complex is involved in multiple processes that require DNA as a template such as mRNA elongation, DNA replication and DNA repair. During transcription elongation the FACT complex acts as a histone chaperone that both destabilizes and restores nucleosomal structure. It facilitates the passage of RNA polymerase II and transcription by promoting the dissociation of one histone H2A-H2B dimer from the nucleosome, then subsequently promotes the reestablishment of the nucleosome following the passage of RNA polymerase II. The FACT complex is probably also involved in phosphorylation of 'Ser-392' of p53/TP53 via its association with CK2 (casein kinase II). Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene.,PTM:ADP-ribosylated. ADP-ribosylation by PARP1 is induced by genotoxic stress and correlates with dissociation of FACT from chromatin.,sequence caution:Contaminating sequence. Potential poly-A sequence.,similarity:Belongs to the peptidase M24 family. SPT16 subfamily.,subcellular location:Colocalizes with RNA polymerase II on chromatin. Recruited to actively transcribed loci.,subunit:Component of the FACT complex, a stable heterodimer of SSRP1 and SUPT16H. Also component of a CK2-SPT16-SSRP1 complex which forms following UV irradiation, composed of SSRP1, SUPT16H, CSNK2A1, CSNK2A2 and CSNK2B. Component of the WINAC complex, at least composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B. Interacts with NEK9. Binds to histone H2A-H2B. Interacts with GTF2E2.,tissue specificity:Ubiquitous., |
| Usage                    | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |