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BRDT Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7115a

Specification

BRDT Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	Q58F21
Other Accession	O14789

BRDT Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 676

Other Names
Bromodomain testis-specific protein, Cancer/testis antigen 9, CT9, RING3-like protein, BRDT

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7115a was selected from the N-term region of human BRDT. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BRDT Antibody (N-term) Blocking Peptide - Protein Information

Name BRDT

Function
Testis-specific chromatin protein that specifically binds histone H4 acetylated at 'Lys-5' and 'Lys-8' (H4K5ac and H4K8ac, respectively) and plays a key role in spermatogenesis (PubMed:22464331, PubMed:22901802). Required in late pachytene spermatocytes: plays a role in meiotic and post-meiotic cells by binding to acetylated histones at the promoter of specific meiotic and post-meiotic genes, facilitating their activation at the appropriate time (PubMed:22901802). In the post-meiotic phase of spermatogenesis, binds to hyperacetylated histones and participates in their general removal from DNA (PubMed:22901802). Also recognizes and binds a subset of butyrylated histones: able to bind histone H4 butyrylated at

'Lys-8' (H4K8ac), while it is not able to bind H4 butyrylated at 'Lys-5' (H4K5ac) (By similarity). Also acts as a component of the splicing machinery in pachytene spermatocytes and round spermatids and participates in 3'-UTR truncation of specific mRNAs in post-meiotic spermatids (By similarity). Required for chromocenter organization, a structure comprised of peri-centromeric heterochromatin.

Cellular Location
Nucleus. Note=Detected on chromatin {ECO:0000250|UniProtKB:Q91Y44}

Tissue Location
Testis-specific. A 3-fold higher expression is seen in adult testis than in embryo testis. Expression seems to be correlated with histone H4 hyperacetylation during the haploid phase of spermatogenesis (spermiogenesis). No expression, or very low expression is seen in patients' testes with abnormal spermatogenesis. Expressed in cancers such as non-small cell lung cancer and squamous cell carcinomas of the head and neck as well as of esophagus, but not in melanoma or in cancers of the colon, breast, kidney and bladder

BRDT Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

BRDT Antibody (N-term) Blocking Peptide - Images

BRDT Antibody (N-term) Blocking Peptide - Background

BRDT is similar to the RING3 protein family. It possesses 2 bromodomain motifs and a PEST sequence (a cluster of proline, glutamic acid, serine, and threonine residues), characteristic of proteins that undergo rapid intracellular degradation. The bromodomain is found in proteins that regulate transcription. Two transcript variants encoding the same protein have been found for this gene. Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 both encode the same protein.

BRDT Antibody (N-term) Blocking Peptide - References

Pivot-Pajot, C., et al., Mol. Cell. Biol. 23(15):5354-5365 (2003).Dhalluin, C., et al., Nature 399(6735):491-496 (1999).Jones, M.H., et al., Genomics 45(3):529-534 (1997).