

BRD3 Rabbit pAb

Catalog # AP100190

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q15059
Other Accession	Q15059
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79542
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human BRD3
Epitope Specificity	601-700/726
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 2 bromo domains.
SUBUNIT	Interacts (via bromo domain 1) with GATA1 acetylated at 'Lys-312' and 'Lys-315'. Interacts (via bromo domain 1) with GATA2 acetylated on lysine residues (By similarity). Interacts (via bromodomains) with acetylated lysine residues on the N-terminus of histone H2A, H2B, H3 and H4 (in vitro).
DISEASE	Note=A chromosomal aberration involving BRD3 is found in a rare, aggressive, and lethal carcinoma arising in midline organs of young people. Translocation t(15;9)(q14;q34) with NUT which produces a BRD3-NUT fusion protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The bromodomain-containing proteins include BRD2, BRD3, BRD4 and BRDT. BRD2 (RING3 protein) is a mitogen-activated nuclear protein whose gene is located in the human MHC II region, suggesting its relation to HLA-associated diseases. The gene encoding BRD3 (RING3-like protein) contains two bromodomains and maps to chromosome 9q34. BRD4 (HUNK1 protein) is a nuclear protein involved in the regulation of chromosomal dynamics during mitosis. The testis-specific bromodomain protein BRDT contains a PEST sequence, indicating that it undergoes rapid intracellular degradation. The bromodomain-containing proteins are ubiquitously expressed.

Additional Information

Gene ID	8019
Other Names	FSHRG2; ORFX; RING3L; BRD3_HUMAN; BRD3; RING3-like protein; KIAA0043; bromodomain containing 3; bromodomain-containing 3; RING3-like; female sterile homeotic related gene 2
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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Protein Information

Name	BRD3 {ECO:0000303 PubMed:18406326, ECO:0000312 HGNC:HGNC:1104}
Function	Chromatin reader that recognizes and binds acetylated histones, thereby controlling gene expression and remodeling chromatin structures (PubMed: 18406326 , PubMed: 22464331 , PubMed: 27105114 , PubMed: 32895492). Recruits transcription factors and coactivators to target gene sites, and activates RNA polymerase II machinery for transcriptional elongation (PubMed: 29567837 , PubMed: 32895492). In vitro, binds acetylated lysine residues on the N-terminus of histone H2A, H2B, H3 and H4 (PubMed: 18406326). Involved in endoderm differentiation via its association with long non-coding RNA (lncRNA) DIGIT: BRD3 undergoes liquid-liquid phase separation upon binding to lncRNA DIGIT, promoting binding to histone H3 acetylated at 'Lys-18' (H3K18ac) to induce endoderm gene expression (PubMed: 32895492). Also binds non-histones acetylated proteins, such as GATA1 and GATA2: regulates transcription by promoting the binding of the transcription factor GATA1 to its targets (By similarity).
Cellular Location	Nucleus. Chromosome. Note=Detected on chromatin
Tissue Location	Ubiquitous..

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