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BRD3 Rabbit pAb

Catalog # AP100190

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q15059
Other Accession	Q15059
Predicted	Rat, Pig, Human, Mouse, Chicken, Dog, Horse
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 GATA2acetylated on lysine residues (By similarity). Interacts (via bromodomains) with acetylated lysine residues on the N-terminus ofhistone 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.

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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