

# DP1 Rabbit pAb

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Catalog # AP94114

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF
<b>Primary Accession</b>	<a href="#">Q14186</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Predicted</b>	Chicken, Dog, Horse, Rabbit
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	45070
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human TFDP1
<b>Epitope Specificity</b>	221-320/410
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus.
<b>SIMILARITY</b>	Belongs to the E2F/DP family.
<b>SUBUNIT</b>	Component of the E2F/DP transcription factor complex. Forms heterodimers with E2F family members. The complex can interact with hypophosphorylated retinoblastoma protein RB1 and related proteins (RBL1 and RBL2) that inhibit the E2F transactivation domain. This repression involves recruitment of histone deacetylase (HDAC). During the cell cycle, from mid-to-late G1 phase, RB family members become phosphorylated, detach from the DRTF1/E2F complex to render E2F transcriptionally active. Viral oncoproteins, notably E1A, T-antigen and HPV E7, are capable of sequestering RB protein, thus releasing the active complex. Part of the E2F6.com-1 complex in G0 phase is composed of E2F6, MGA, MAX, TFDP1, CBX3, BAT8, EUHMTASE1, RING1, RNF2, MBLR, L3MBTL2 YAF2. Component of the DREAM complex (also named LINC complex) at least composed of E2F4, E2F5, LIN9, LIN37, LIN52, LIN54, MYBL1, MYBL2, RBL1, RBL2, RBBP4, TFDP1 and TFDP2. The complex exists in quiescent cells where it represses cell cycle-dependent genes. It dissociates in S phase when LIN9, LIN37, LIN52 and LIN54 form a subcomplex that binds to MYBL2.
<b>Post-translational modifications</b>	Phosphorylation by E2F-1-bound cyclin A-CDK2, in the S phase, inhibits E2F-mediated DNA binding and transactivation.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	This gene encodes a member of a family of transcription factors that heterodimerize with E2F proteins to enhance their DNA-binding activity and promote transcription from E2F target genes. The encoded protein functions as part of this complex to control the transcriptional activity of numerous genes involved in cell cycle progression from G1 to S phase. Alternative splicing results in multiple transcript variants. Pseudogenes of this gene are found on chromosomes 1, 15, and X.[provided by RefSeq, Jan 2009]

## Additional Information

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Gene ID	7027
Other Names	Transcription factor Dp-1, DRTF1-polypeptide 1, DRTF1, E2F dimerization partner 1, TFDP1, DP1
Target/Specificity	Highest levels in muscle. Also expressed in brain, placenta, liver and kidney. Lower levels in lung and pancreas.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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

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Name	TFDP1
Synonyms	DP1
Function	Can stimulate E2F-dependent transcription. Binds DNA cooperatively with E2F family members through the E2 recognition site, 5'-TTTC[CG]CGC-3', found in the promoter region of a number of genes whose products are involved in cell cycle regulation or in DNA replication (PubMed: <a href="#">7739537</a> , PubMed: <a href="#">8405995</a> ). The E2F1:DP complex appears to mediate both cell proliferation and apoptosis. Blocks adipocyte differentiation by repressing CEBPA binding to its target gene promoters (PubMed: <a href="#">20176812</a> ).
Cellular Location	Nucleus {ECO:0000250 UniProtKB:Q08639}. Cytoplasm {ECO:0000250 UniProtKB:Q08639}. Note=Shuttles between the cytoplasm and nucleus and translocates into the nuclear compartment upon heterodimerization with E2F1. {ECO:0000250 UniProtKB:Q08639}
Tissue Location	Highest levels in muscle. Also expressed in brain, placenta, liver and kidney. Lower levels in lung and pancreas. Not detected in heart

## Background

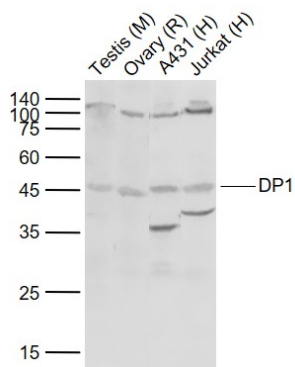
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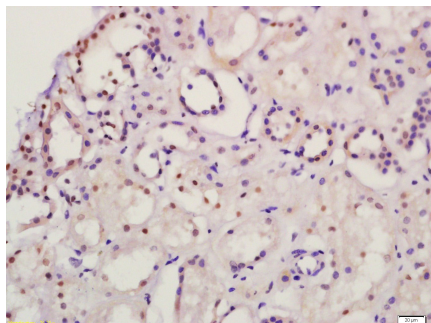
## Images

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Sample:  
Lane 1: Mouse Testis tissue lysates  
Lane 2: Rat Ovary tissue lysates  
Lane 3: Human A431 cell lysates  
Lane 4: Human Jurkat cell lysates



Primary: Anti-DP1 (AP94114) at 1/1000 dilution  
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
 Predicted band size: 45 kD  
 Observed band size: 45 kD



Tissue/cell: human kidney tissue; 4%  
 Paraformaldehyde-fixed and paraffin-embedded;  
 Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
 Incubation: Anti-DP1/TFDP1 Polyclonal Antibody, Unconjugated(AP94114) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.