For Research Use Only

DACH1 Polyclonal antibody

Catalog Number:10914-1-AP Featured Product 73 Publications

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Basic Information

Catalog Number:
10914-1-AP

Concentration:
600 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1354

GenBank Accession Number:
BC021219

GeneID (NCBI):
1602

UNIPROT ID:
Q9UI36

Full Name:
dachshund homolog 1 (Drosophila)

Calculated MW:
79 kDa

Observed MW:
97-110 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, IP, ELISA

Cited Applications:
WB, IHC, IF, IP, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, zebrafish

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : H9C2 cells, HEK-293 cells

IP : HEK-293 cells,

IHC : human oesophagus cancer tissue, mouse brain tissue

IF/ICC : HEK-293 cells,

Background Information

DACH1, a homologue of the Drosophila dachshund gene, is a key regulator of cell fate determination during eye, leg, and brain development in the fly. Through interacting with NCoR and Smad4, DACH1 is able to inhibit the transforming growth factor-beta (TGF-beta) signaling pathway. DACH1 can inhibit breast cancer cellular proliferation via cyclin D1, suggesting a possible role in tumor suppression. Additionally, DACH1 plays an important role in negative regulation of RANKL (Receptor activator of NF-kappaB ligand) gene expression in marrow stromal/preosteoblast cells. Dach1 expression is enriched in rECs, which are associated with osteoprogenitors and bone-resorbing osteoclasts, and overexpression of DACH1 in postnatal mice induces a strong increase in arteries and type R capillaries, leading to local metabolic changes and enabling trabecular bone formation in normally highly hypoxic areas of the diaphysis (PMID: 39528700). Moreover, Loss of DACH1 expression might be involved in endometrial cancer progression. Four isoforms of DACH1 are produced by alternative splicing. This antibody is a rabbit polyclonal antibody raised against residues near the C terminus of human DACH1.

Notable Publications

Author	Pubmed ID	Journal	Application
Fernando Bonet	30204931	Dev Dyn	IF
Masahiro Okabe	30379099	Am J Physiol Renal Physiol	IHC,IF
Wenji Yan	24149323	Epigenetics	

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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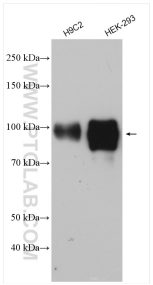
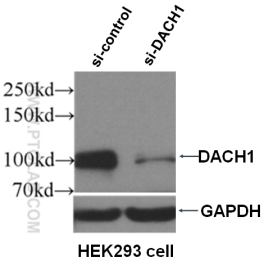
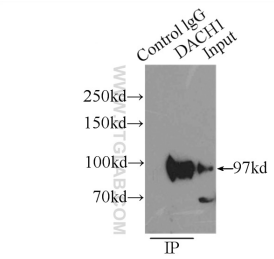
Selected Validation Data



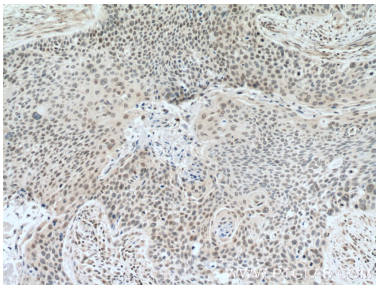
Various lysates were subjected to SDS PAGE followed by western blot with 10914-1-AP (DACH1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



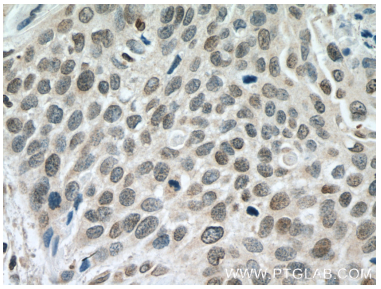
WB result of DACH1 (10914-1-AP, 1:4000) with si-control and si-DACH1 transfected HEK293 cells.



IP result of anti-DACH1 (IP:10914-1-AP, 4ug; Detection:10914-1-AP 1:1000) with HEK-293 cells lysate 6000ug.



Immunohistochemical analysis of paraffin-embedded human oesophagus cancer tissue slide using 10914-1-AP (DACH1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human oesophagus cancer tissue slide using 10914-1-AP (DACH1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunofluorescent analysis of (4% PFA) fixed HEK-293 cells using DACH1 antibody (10914-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).