For Research Use Only

## CoraLite® Plus 488-conjugated DACH1 Monoclonal antibody



**Purification Method:** 

493 nm / 522 nm

Protein G purification

Catalog Number: CL488-60082

Featured Product

**Basic Information** 

Catalog Number: GenBank Accession Number: CL488-60082 BC021219

GeneID (NCBI): CloneNo.: 1000 ug/ml 1602 3B6D2

**UNIPROT ID:** Recommended Dilutions: Source: Mouse Q9UI36 IF-P 1:50-1:500

Excitation/Emission maxima Full Name: Isotype

lgG1 dachshund homolog 1 (Drosophila) wavelengths:

Calculated MW: Immunogen Catalog Number:

79 kDa

**Applications** 

**Tested Applications:** IF-P

Species Specificity: human, mouse, rat

Positive Controls:

IF-P: mouse brain tissue,

## **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, but isoform1(97-110kd) is the predominantly expressed form in tissue. This antibody is a mouse monoclonal antibody raised against residues near the C terminus of human DACH1. The antibody is conjugated with CL488, Ex/Em 488 nm/515 nm.

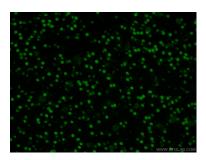
Storage

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

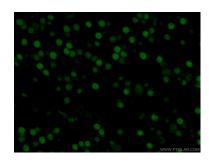
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using CL488-60082 (DACH1 antibody) at dilution of 1:50.



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