



# DRG1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12620b

### **Product Information**

**Application** IHC-P, FC, WB, E

Primary Accession <u>Q9Y295</u>

Other Accession <u>P32233</u>, <u>Q3MHP5</u>, <u>NP 004138.1</u>

**Reactivity** Human Bovine, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB32151
Calculated MW 40542
Antigen Region 334-363

## **Additional Information**

**Gene ID** 4733

**Other Names** Developmentally-regulated GTP-binding protein 1, DRG-1, Neural precursor

cell expressed developmentally down-regulated protein 3, NEDD-3, DRG1,

NEDD3

**Target/Specificity** This DRG1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 334-363 amino acids from the

C-terminal region of human DRG1.

Dilution IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent

concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** DRG1 Antibody (C-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

## **Protein Information**

Name DRG1 {ECO:0000303|PubMed:29915238, ECO:0000312|HGNC:HGNC:3029}

#### **Function**

Catalyzes the conversion of GTP to GDP through hydrolysis of the gamma-phosphate bond in GTP (PubMed:23711155, PubMed:29915238, PubMed:37179472). Appears to have an intrinsic GTPase activity that is stimulated by ZC3H15/DFRP1 binding likely by increasing the affinity for the potassium ions (PubMed:23711155). When hydroxylated at C-3 of 'Lys-22' by JMJD7, may bind to RNA and play a role in translation (PubMed:19819225, PubMed:29915238). Binds to microtubules and promotes microtubule polymerization and stability that are required for mitotic spindle assembly during prophase to anaphase transition. GTPase activity is not necessary for these microtubule-related functions (PubMed:28855639).

**Cellular Location** 

Nucleus. Cytoplasm. Note=The DRG1-ZC3H15/DFRP1 complex associates with polysomes

**Tissue Location** 

High levels in skeletal muscle, heart, and kidney. Intermediate levels in liver, placenta and brain. Low levels in colon, thymus, spleen, small intestine, lung and leukocytes

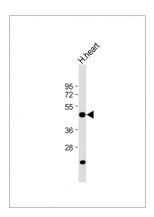
# **Background**

DRG1 may play a role in cell proliferation, differentiation and death.

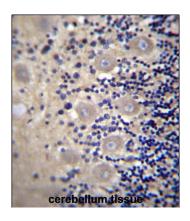
## References

de Krom, M., et al. Biol. Psychiatry 65(7):625-630(2009) Bandyopadhyay, S., et al. Cancer Res. 66(24):11983-11990(2006) Bandyopadhyay, S., et al. Oncogene 23(33):5675-5681(2004) Collins, J.E., et al. Genome Biol. 5 (10), R84 (2004) : Bandyopadhyay, S., et al. Cancer Res. 63(8):1731-1736(2003)

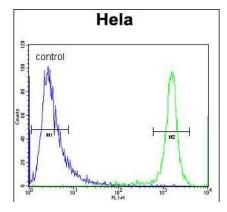
# **Images**



Anti-DRG1 Antibody (C-term) at 1:2000 dilution + Human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 41 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



DRG1 Antibody (C-term) (Cat. #AP12620b)immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of DRG1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



DRG1 Antibody (C-term) (Cat. #AP12620b) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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