



## P311 (Q-12): sc-160638

### BACKGROUND

P311, also known as C5orf13 (chromosome 5 open reading frame 13), D4S114, PTZ17 or PRO1873, is a 68 amino acid cytoplasmic protein involved in cellular differentiation, neural function and axonal regeneration. Found in the granular layer of the cerebellum, P311 is expressed at lower levels in hippocampus, olfactory bulb, kidney, liver and heart and when expressed ectopically, P311 augments glioma motility. P311 is enriched in mice within the superficial cortical layers and striatum at E20 and the germinal zones at E17. Known to interact with Filamin 1, P311 regulates retinoic-acid lipid-droplet biogenesis, induces myofibroblast amoeboid migration and the differentiation of fibroblasts into myofibroblasts. Ser-59 phosphorylation decreases P311 stability; the gene encoding P311 maps to human chromosome 5q22.1.

### REFERENCES

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2. Miura, N. and Naganuma, A. 2000. Metallothionein mediates gene expression of 3.1 mRNA (PTZ17) related to epileptic seizure. *FEBS Lett.* 479: 146-148.
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6. Zhao, L., Leung, J.K., Yamamoto, H., Goswami, S., Kheradmand, F. and Vu, T.H. 2006. Identification of P311 as a potential gene regulating alveolar generation. *Am. J. Respir. Cell Mol. Biol.* 35: 48-54.
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### CHROMOSOMAL LOCATION

Genetic locus: DOH4S114 (mouse) mapping to 18 B1.

### SOURCE

P311 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of P311 of mouse origin.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160638 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

P311 (Q-12) is recommended for detection of P311 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for P311 siRNA (m): sc-151961, P311 shRNA Plasmid (m): sc-151961-SH and P311 shRNA (m) Lentiviral Particles: sc-151961-V.

Molecular Weight of P311: 8 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.