# GPATCH2 (E-18): sc-240526



The Power to Question

#### **BACKGROUND**

GPATCH2 (G patch domain-containing protein 2) is a 528 amino acid protein that contains one G-patch domain. GPATCH2 is overexpressed in breast cancer tissue, and may have a role in breast cancer cell growth. Existing as two alternatively spliced isoforms, the gene encoding GPATCH2 maps to human chromosome 1q41 and mouse chromosome 1 H5. Spanning around 260 million base pairs, chromosome 1 is the largest human chromosome and comprises 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

# **REFERENCES**

- Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. Science 280: 1753-1757.
- 2. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
- Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
- Holliday, E.G., et al. 2009. Strong evidence for a novel schizophrenia risk locus on chromosome 1p31.1 in homogeneous pedigrees from Tamil Nadu, India. Am. J. Psychiatry 166: 206-215.
- 6. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. Cancer Genet. Cytogenet. 192: 68-72.
- 7. Lin, M.L., et al. 2009. Involvement of G-patch domain containing 2 overex-pression in breast carcinogenesis. Cancer Sci. 100: 1443-1450.
- 8. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. Graefes Arch. Clin. Exp. Ophthalmol. 247: 715-718.

# **CHROMOSOMAL LOCATION**

Genetic locus: GPATCH2 (human) mapping to 1q41; Gpatch2 (mouse) mapping to 1 H5.

## SOURCE

GPATCH2 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GPATCH2 of human origin.

# **PRODUCT**

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

Blocking peptide available for competition studies, sc-240526 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

GPATCH2 (E-18) is recommended for detection of GPATCH2 of mouse, rat and human 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); non cross-reactive with other GPATCH family members.

GPATCH2 (E-18) is also recommended for detection of GPATCH2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GPATCH2 siRNA (h): sc-88295, GPATCH2 siRNA (m): sc-145679, GPATCH2 shRNA Plasmid (h): sc-88295-SH, GPATCH2 shRNA Plasmid (m): sc-145679-SH, GPATCH2 shRNA (h) Lentiviral Particles: sc-88295-V and GPATCH2 shRNA (m) Lentiviral Particles: sc-145679-V.

Molecular Weight of GPATCH2 isoforms 1/2: 59/43 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.

#### **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.

## **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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