

Prokineticin-2 (N-17): sc-48070

BACKGROUND

Prokineticin-2 (PK2) is a cysteine-rich secreted protein that is expressed in the suprachiasmatic nucleus (SCN) with receptors located in the critical autonomic control centers of the brain. It has a depolarizing effect on neurons expressing the receptor. PK2 is predominantly controlled by the endogenous circadian clock, but light also plays a modulatory role. PK2 functions as a critical SCN output molecule responsible for circadian locomotor rhythms. PK2 expression is high during the day, and responsive to nocturnal light pulses. PK2 also functions as a chemoattractant for subventricular zone-derived neuronal progenitors.

REFERENCES

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- Cottrell, G.T., et al. 2004. Prokineticin-2 modulates the excitability of sub-fornical organ neurons. *J. Neurosci.* 24: 2375-2379.
- Cheng, M.Y., et al. 2005. Regulation of Prokineticin-2 expression by light and the circadian clock. *BMC Neurosci.* 6: 17.
- Lambert, C.M., et al. 2005. Analysis of the Prokineticin-2 system in a diurnal rodent, the unstriped Nile grass rat (*Arvicanthis niloticus*). *J. Biol. Rhythms* 20: 206-218.
- Morton, A.J., et al. 2005. Disintegration of the sleep-wake cycle and circadian timing in Huntington's disease. *J. Neurosci.* 25: 157-163.
- Ng, K.L., et al. 2005. Dependence of olfactory bulb neurogenesis on Prokineticin-2 signaling. *Science* 308: 1923-1927.

CHROMOSOMAL LOCATION

Genetic locus: PROK2 (human) mapping to 3p13.

SOURCE

Prokineticin-2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Prokineticin-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, Ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Prokineticin-2 (N-17) is recommended for detection of Prokineticin-2 isoform 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 Prokineticin-2 siRNA (h): sc-61409, Prokineticin-2 shRNA Plasmid (h): sc-61409-SH and Prokineticin-2 shRNA (h) Lentiviral Particles: sc-61409-V.

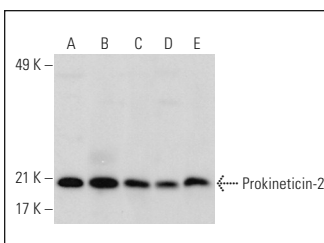
Molecular Weight of Prokineticin-2: 9 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEK293 whole cell lysate: sc-45136 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Prokineticin-2 (N-17): sc-48070. Western blot analysis of Prokineticin-2 expression in K-562 (A), HEK293 (B), NTERA-2 cl.D1 (C) and DU 145 (D) whole cell lysates and human testis tissue extract (E).

RESEARCH USE

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