

# Calcyon (E-20): sc-10837

## BACKGROUND

Calcyon is a single transmembrane protein that interacts with D1 dopamine receptors. Dopamine is a neurotransmitter that regulates synaptic transmission involved in learning and memory. D1 receptors, the most abundant dopamine receptor in the central nervous system, appear to modulate the activity of D2 dopamine receptors, mediate various behavioural responses, and regulate neuron growth and differentiation. Calcyon is present in neuronal cell bodies and processes of the cortex and hippocampus, and it is especially abundant in pyramidal neurons. Interaction of calcyon with D1 receptors results in a release of intracellular calcium.

## CHROMOSOMAL LOCATION

Genetic locus: CALY (human) mapping to 10q26.3; Caly (mouse) mapping to 7 F4.

## SOURCE

Calcyon (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Calcyon 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, sc-10837 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.

## RESEARCH USE

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

## APPLICATIONS

Calcyon (E-20) is recommended for detection of Calcyon of mouse, rat and 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).

Calcyon (E-20) is also recommended for detection of Calcyon in additional species, including canine.

Suitable for use as control antibody for Calcyon siRNA (h): sc-43656, Calcyon siRNA (m): sc-60037, Calcyon shRNA Plasmid (h): sc-43656-SH, Calcyon shRNA Plasmid (m): sc-60037-SH, Calcyon shRNA (h) Lentiviral Particles: sc-43656-V and Calcyon shRNA (m) Lentiviral Particles: sc-60037-V.

Molecular Weight of unglycosylated Calcyon: 24 kDa.

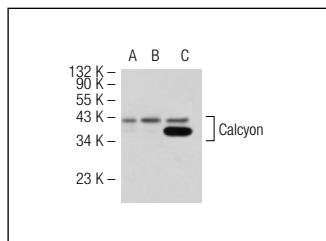
Molecular Weight of glycosylated Calcyon: 28-35 kDa.

Positive Controls: Calcyon (h): 293T Lysate: sc-115499, SK-N-MC cell lysate: sc-2237 or H4 cell lysate: sc-2408.

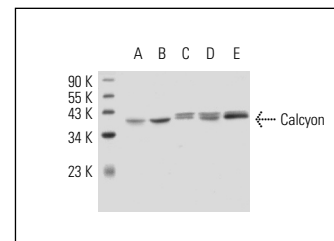
## RECOMMENDED SECONDARY REAGENTS

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



Calcyon (E-20): sc-10837. Western blot analysis of Calcyon expression in non-transfected 293T: sc-117752 (A), human Calcyon transfected 293T: sc-115499 (B) and H4 (C) whole cell lysates.



Calcyon (E-20): sc-10837. Western blot analysis of Calcyon expression in SK-N-MC (A), H4 (B), IMR-32 (C), T98G (D) and U-87 MG (E) whole cell lysates.

## PROTOCOLS

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

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Try **Calcyon (G-8): sc-271004**, our highly recommended monoclonal alternative to Calcyon (E-20).