

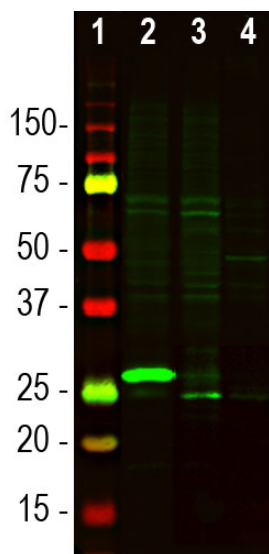
Ordering Information
Web www.encorbio.com
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Phone 352-372-7022
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HGNC Name: SCGN
UniProt: O76038
RRID: AB_2744521
Immunogen: Full-length recombinant human secretagogin protein
Format: Affinity purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN₃
Storage: Stable at 4°C for one year, for longer term store at -20°C
Recommended dilutions:
WB: 1:1,000-5,000 IF/ICC or IHC: 1:1,000-1:2,000

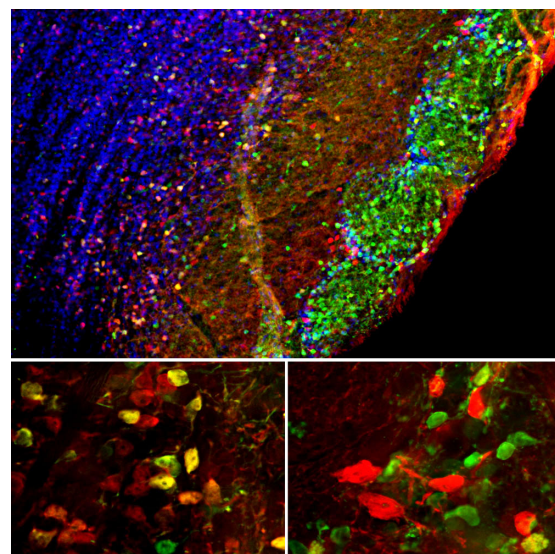
References:

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2. Gartner W, et al. Cerebral expression and serum detectability of secretagogin, a recently cloned EF-hand Ca²⁺-binding protein. *Cereb. Cortex* 11:1161-9 (2001).
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Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, IF/ICC, IHC	Chicken		~27kDa	Hu, Rt, Ms



Western blot analysis of tissue lysates using chicken pAb to secretagogin, CPCA-SCGN, dilution 1:1,000 in green: [1] protein standard, [2] mouse olfactory bulb [3] rat cerebellum, and [4] cow cerebellum. The band at ~27kDa corresponds to the secretagogin protein. Secretagogin protein is highly expressed in the mouse olfactory bulb, but significantly less in the cerebellum.



Immunofluorescent analysis of mouse brain olfactory bulb section stained with chicken pAb to secretagogin, CPCA-SCGN, dilution 1:1,000, in red, and costained with mouse mAb to calretinin, MCA-3G9, dilution 1:500 in green. The blue is Hoechst staining of nuclear DNA. Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45μM, and free-floating sections were stained with the above antibodies. Secretagogin is highly expressed in the mitral and granular cell layers, while calretinin is in the glomerular layer. Cells that express secretagogin or calretinin only are red or green respectively. A number of cells containing both proteins appears orange-yellow. Mouse select image at left for larger view.

Background: Secretagogin is a member of the EF-hand superfamily of small Calcium-binding proteins which are widely expressed in cells and tissues. It was first cloned from pancreatic islets of Langerhans and neuroendocrine cells and is highly expressed in these tissues (1). Initially it is thought to be restricted to neuroendocrine cells, but it is now evident that secretagogin is expressed in numerous brain regions (2,3). The expression pattern of secretagogin is not well conserved from rodents to humans; While human brain reveals an expression maximum in the cerebellum, in rat and mouse brain the highest expression is found in the olfactory bulbs. In the cerebellum the protein is highly expressed in basket and stellate cells. Secretagogin has been shown to be involved in insulin secretion from pancreatic beta cells and is a strong candidate as a biomarker for endocrine tumors (4). Similar to S100β, secretagogin may be a useful biomarker of neuronal damage, stroke, and eventually psychiatric conditions (2,5-7). Moreover, secretagogin has been hypothesized to exert a neuroprotective role in neurodegenerative diseases like Alzheimer's disease (8). The CPCA-SCGN antibody was made against the full length recombinant human secretagogin protein expressed in and purified from *E. coli*. The antibody works well on western blots, in IF/ICC and IHC and is an excellent marker of pancreatic islets. We also supply a rabbit polyclonal antibody to this protein, RPCA-SCGN.

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Abbreviation Key:

mAb—Monoclonal Antibody **pAb**—Polyclonal Antibody **WB**—Western Blot **IF**—Immunofluorescence **ICC**—Immunocytochemistry
IHC—Immunohistochemistry **E**—ELISA **Hu**—Human **Mo**—Monkey **Do**—Dog **Rt**—Rat **Ms**—Mouse **Co**—Cow **Pi**—Pig **Ho**—Horse **Ch**—Chicken
Dr—*D. rerio* **Dm**—*D. melanogaster* **Sm**—*S. mutans* **Ce**—*C. elegans* **Sc**—*S. cerevisiae* **Sa**—*S. aureus* **Ec**—*E. coli*.