

# Calregulin (N-19): sc-6468

## BACKGROUND

Calnexin and Calregulin (also called calreticulin) are calcium-binding proteins that are localized to the endoplasmic reticulum, Calnexin to the membrane and Calregulin to the lumen. Calnexin is a type I membrane protein that interacts with newly synthesized glycoproteins in the endoplasmic reticulum. It may play a role in assisting with protein assembly and in retaining unassembled protein subunits in the endoplasmic reticulum. Calregulin has both low- and high-affinity calcium-binding sites. Neither Calnexin nor Calregulin contains the calcium-binding "E-F hand" motif found in calmodulins. Calnexin and Calregulin are important for the maturation of glycoproteins in the endoplasmic reticulum and appear to bind many of the same proteins.

## CHROMOSOMAL LOCATION

Genetic locus: CALR (human) mapping to 19p13.2; Calr (mouse) mapping to 8 C3.

## SOURCE

Calregulin (N-19) is available as either goat (sc-6468) or rabbit (sc-6468-R) polyclonal affinity purified antibody raised against a peptide mapping near the N-terminus of Calregulin of human origin.

## PRODUCT

Each vial contains either 100 µg (sc-6468) or 200 µg (sc-6468-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6468 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Calregulin (N-19) is recommended for detection of Calregulin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Calregulin (N-19) is also recommended for detection of Calregulin in additional species, including canine.

Suitable for use as control antibody for Calregulin siRNA (h): sc-29234, Calregulin siRNA (m): sc-29895, Calregulin siRNA (r): sc-63293, Calregulin shRNA Plasmid (h): sc-29234-SH, Calregulin shRNA Plasmid (m): sc-29895-SH, Calregulin shRNA Plasmid (r): sc-63293-SH, Calregulin shRNA (h) Lentiviral Particles: sc-29234-V, Calregulin shRNA (m) Lentiviral Particles: sc-29895-V and Calregulin shRNA (r) Lentiviral Particles: sc-63293-V.

Molecular Weight of Calregulin: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-MEL-28 cell lysate: sc-2236 or NIH/3T3 whole cell lysate: sc-2210.

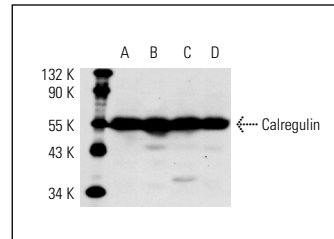
## RESEARCH USE

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

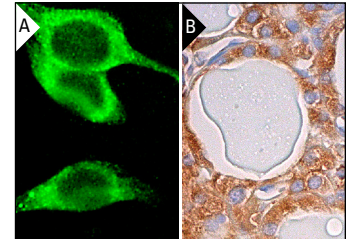
## STORAGE

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

## DATA



Calregulin (N-19): sc-6468. Western blot analysis of Calregulin expression in HeLa (A), SK-MEL-28 (B), NIH/3T3 (C) and HL-60 (D) whole cell lysates.



Calregulin (N-19): sc-6468. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Orr, A.W., et al. 2003. Low density lipoprotein receptor-related protein is a calreticulin co-receptor that signals focal adhesion disassembly. *J. Cell Biol.* 161: 1179-1189.
- Machka, C., et al. 2005. Identification of Dll1 (Delta1) target genes during mouse embryogenesis using differential expression profiling. *Gene Expr. Patterns* 6: 94-101.
- Jain, P., et al. 2007. Identification of human T cell leukemia virus type 1 tax amino acid signals and cellular factors involved in secretion of the viral oncoprotein. *J. Biol. Chem.* 282: 34581-34593.
- Carpí, D., et al. 2009. Dioxin-sensitive proteins in differentiating osteoblasts: effects on bone formation *in vitro*. *Toxicol. Sci.* 108: 330-343.
- Vega-Naredo, I. and Coto-Montes, A. 2009. Physiological autophagy in the Syrian hamster Harderian gland. *Meth. Enzymol.* 452: 457-476.

## 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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