

Anti-Calnexin-NT

Catalog# SPC-127 A/B

Size: 50/200µL

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This product is for *in vitro* research use only and is not intended for use in humans or animals

StressMarq

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Product	Rabbit anti-calnexin-NT antibody; polyclonal
Clone	N/A
Immunogen	A 19 residue synthetic peptide based on canine calnexin and the peptide coupled to KLH.
Host and Subclass	Rabbit
Cited Applications	WB, IP, ICC
Specificity	Detects ~90kDa
Species cross-reactivity	Human, Mouse, Rat, Bovine, Chicken, Dog, Guinea Pig, Hamster, Pig, Monkey, Rabbit, Sheep, <i>Xenopus</i>
Format	Whole Rabbit Serum
Working Dilution	WB 1:5000-10000 (ECL) IP 1:100 (9)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

Calnexin, an abundant ~90kDa integral protein of the endoplasmic reticulum, is also referred to as IP90, p88 and p90 (1). It consists of a large 50kDa N-terminal calcium-binding luminal domain, a single transmembrane helix and a short acidic cytoplasmic tail (2, 3). Unlike its ER counterparts which have a KDEL sequence on their C-terminus to ensure ER retention (4), calnexin has positively charged cytosolic residues that do the same thing (3).

Most ER proteins act as molecular chaperones and participate in the proper folding of polypeptides

and their assembly into multi-subunit proteins. Calnexin together with calreticulin, plays a key role in glycoprotein folding and its control within the ER, by interacting with folding intermediates via their monoglycosylated glycans (5, 6). Calnexin has also been shown to associate with the major histocompatibility complex class I heavy chains, partial complexes of the T cell receptor and B cell membrane immunoglobulin (7).

Selected References

1. Rajagopalan S., Xu Y., and Brenner M.B. (1994) *Science* 263(5145): 387-90.
2. Tjoelker L.W., et al. (1994) *Biochemistry* 33: 3229.
3. Schrag J. et al. (2001) *Molecular Cell* 8(3): 633-644.
4. Janiszewski M. (2005) *J. Biol Chem.* 280(49): 40813-40819.
5. Elagoz A., Callejo M., Armstrong J., and Rokeach L. A. (1999) *J. Cell Sci.* 112: 4449-4460.
6. Otteken A. and Moss B. (1996) *J Bio Chem.* 271(1): 97-103.
7. Galvin K. et al. (1992) *Proc Natl Acad Sci USA.* 89(18): 8452-6.
8. Raggio C., et al. (2002) *Mol Cell Biol.* 22: 5639-5649.
9. Rubio M.E., and Wenthold R.J. (1999) *J Neurochem.* 73: 942-948.

Certificate of Analysis

A 1:5000 dilution of SPC-127 was sufficient for detection of Calnexin in 20µg of HeLa cell lysate by ECL immunoblot analysis.

Material Safety Data Sheet

Anti-Calnexin-NT (Monoclonal Antibody) SPC-127

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The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
None		

Physical Data

This product consists of whole rabbit serum shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

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