

Polyclonal Antibody to Calreticulin - Serum

Alternate names:	CALR, CRP55, CRTC, Calregulin, ERp60, HACBP, grp60
Catalog No.:	SP5414
Quantity:	0.1 ml
Background:	<p>Calreticulin is the major calcium binding protein found in smooth muscle sarcoplasmic reticulum (SR) and non-muscle endoplasmic reticulum (ER) membranes. This protein was originally identified in SR membranes and plays a minor role in calcium storage in skeletal and cardiac muscle SR. Calreticulin is also known as calregulin, CRP55, CaBP3, calsequestrin-like protein and Ro/SS-A antigen. Calreticulin binds calcium with low affinity and high capacity, however it also exhibits a single high affinity binding site. The highly conserved sequence Lys-Asp-Glu-Leu (KDEL) is present at the C-terminus of calreticulin and other resident ER proteins including glucose regulated protein 78 (GRP78), GRP94 and protein disulfide isomerase (PDI). This sequence is responsible for the retention of newly synthesized proteins within the ER lumen. This retention is reported to be mediated by a KDEL receptor. Recent reports indicate that calreticulin can act as a modulator of the regulation of gene transcription by nuclear hormone receptors and may also act as a molecular chaperone.</p>
Uniprot ID:	P27797
NCBI:	NP_004334.1
GeneID:	811
Host:	Rabbit
Immunogen:	Recombinant human calreticulin protein produced in the Baculovirus insect cell system
Format:	State: Liquid diluted antiserum containing 0.05% sodium azide as preservative.
Applications:	<p>Immunoprecipitation. Immunofluorescence: 1/100, staining of calreticulin in rat brain cortex with SP5414 results in fine granular staining consistent with ER localization. Western Blot: 1/1000, detects an ~60 kDa protein representing calreticulin from rat brain extract. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Specificity:	<p>SP5414 detects calreticulin. Species: Human, non-human primates, rabbit, rat, mouse, canine. Other species not tested.</p>
Storage:	<p>Store the antibody at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.</p>

- General Readings:**
1. J. Neurosci., Sep 2007; 27: 9801 - 9815
 2. J. Biol. Chem., Sep 2007; 282: 27994 - 28003
 3. Blood, 90(1): 372-381, 1997.
 4. Cell, 82: 765-771, 1995.
 5. EMBO J., 15(125): 2961-2968, 1996.

Pictures: **Figure 1.** Immunolocalization of calreticulin in rat brain cortex using SP5414 antibody.

