Rabbit Calreticulin Polyclonal Antibody | anti-CALR antibody

Calreticulin Antibody: ATTO 488

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103619	**Rabbit**	**Human, Mouse, Rat, Bovine, Canine, Chicken, Drosophila, Fish (carp), Guinea pig, Hamster, Monkey, Pig, Rabbit, Sheep**	**Immunofluorescence, Immunoprecipitation, Immunocytochemistry, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

Calreticulin; Polyclonal Antibody; Calreticulin Antibody: ATTO 488; CALR; Calregulin; cC1qR; CRP55; ERp60; HSCBP; RO; SSA; grp60; anti-CALR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Canine, Chicken, Drosophila, Fish (carp), Guinea pig, Hamster, Monkey, Pig, Rabbit, Sheep
Clonality	Polyclonal
Form/Format	Rabbit Antiserum
Sequence Length	417
Applicable Applications for anti-CALR antibody	IF (Immunofluorescence), IP (Immunoprecipitation), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Conjugate	ATTO 488
Storage Buffer	Rabbit antiserum
Preparation and Storage	-20 degree C

IMAGES

IHC (Immunohiostchemistry)
Immunohistochemistry analysis using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:50 for 1 hour at RT. Localization: Cytoplasmic granule. Endoplasmic reticulum lumen.

WB (Western Blot)
Western blot analysis of multiple cell lines lysates showing detection of Calreticulin protein using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Load: 15 ugprotein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:5000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.

ADDITIONAL INFORMATION

Related Product Information for anti-CALR antibody	**Background Info:** Detects ~63kDa. **Scientific Background:** Calreticulin is a multifunctional, highly conserved Ca2+ -binding protein that is localized to the endoplasmic reticulum (ER), but has also been detected in the nucleus and nuclear envelop. Like many other ER proteins, it has the conserved ER retention KDEL (Lys-Asp-Glu-Leu) sequence at its C-terminus (1-3). CRT's three domains include a 180 residue N-terminal domain, a proline-rich P-domain (residues 189-288) that binds Ca2+ with high affinity and shares homology with calnexin (CNX) and calmegin, and a 110 residue C-terminal domain that binds Ca2+ with low affinity but high capacity (1,3). Recent studies suggest that this soluble ER protein has a multifunctional role. It appears to be involved in calcium storage and regulation as well as having a molecular chaperone activity. It has been shown to interact with the cytoskeleton and to be involved in the regulation of gene expression. Calreticulin may also play a role in cellular proliferation including its apparent activity in the proliferation of certain viruses within mammalian host cells (4, 5), and it has also been shown to be induced in response to various types of cell stress including amino acid deprivation (6). Close interconnections among protein synthesis, gene expression and calcium signaling have been observed by many researchers in recent years. Calreticulin might be centrally located and therefore it crucially participates in the coordination of many functions by the cell (4, 5). Studies also suggest its involvement in a few diseases such as systemic lupus erythematosus, rheumatoid arthritis, celiac disease, complete congenital heart block, and halothane hepatitis (1).
Product Categories/Family for anti-CALR antibody	Cell Signaling; Organelle Markers
References	1. Johnson S., et al. (2001) Trends Cell Biol 11: 122-129. 2. Smith M.J., et al. (1989) EMBO J. 8: 3581-3586. 3. Ellgaard L., et al. (2001) Curr Opin Cell Biol. 13: 431- 437. 4. Krause K.H., and Michalak M. (1997) Cell. 88: 439-443. 5. Nash P.D., et al. (1994) Mol Cell Biochem. 135: 71-78. 6. Heal R., and McGivan J. (1998) Biochem J. 329: 389- 394. 7. Lucero H.A., et al. (1998) J Biol Chem. 273: 9857- 9863. 8. Tanaka S., et al. (2000) J Biol Chem. 275: 10388- 10393. 9. Yoon G.S., et al. (2000) Cancer Res. 60: 1117-1120. 10. Antoniou A.N., et al. (2002) Immunology 106: 182- 189. 11. Wada I., et al. (1997) EMBO J. 16: 5420-5432. 12. Laguerre D.B., et al. (1998) J Vir. 72: 4940-4949.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4757900
NCBI GeneID	811
NCBI Accession #	NP_004334.1
NCBI GenBank Nucleotide #	NM_004343.3
UniProt Accession #	P27797; Q6IAT4; Q9UDG2
Molecular Weight	48,142 Da
NCBI Official Full Name	calreticulin
NCBI Official Synonym Full Names	calreticulin
NCBI Official Symbol	CALR
NCBI Official Synonym Symbols	RO; CRT; SSA; cC1qR; HEL-S-99n
NCBI Protein Information	calreticulin; CRP55; ERp60; HACBP; grp60; calregulin; endoplasmic reticulum resident protein 60; epididymis secretory sperm binding protein Li 99n; Sicca syndrome antigen A (autoantigen Ro; calreticulin)
UniProt Protein Name	Calreticulin
UniProt Gene Name	**CALR**
UniProt Synonym Gene Names	CRTC; ERp60
UniProt Entry Name	CALR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.