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Product datasheet for TA813231AM

Calreticulin (CALR) Mouse Monoclonal Antibody (Biotin conjugated) [Clone ID: OTI13H4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI13H4
Applications:	WB
Recommended Dilution:	WB 1:500
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CALR (NP_004334) produced in HEK293T cell.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	0.5 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Biotin
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	48.14 kDa
Gene Name:	calreticulin
Database Link:	NP_004334 Entrez Gene 12317 MouseEntrez Gene 64202 RatEntrez Gene 811 Human P27797

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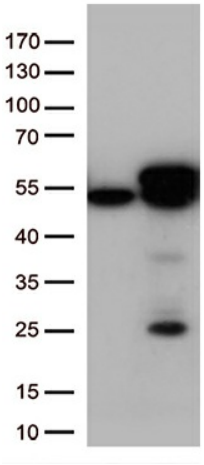
Background: Calreticulin is a multifunctional protein that acts as a major Ca(2+)-binding (storage) protein in the lumen of the endoplasmic reticulum. It is also found in the nucleus, suggesting that it may have a role in transcription regulation. Calreticulin binds to the synthetic peptide KLGFFKR, which is almost identical to an amino acid sequence in the DNA-binding domain of the superfamily of nuclear receptors. Calreticulin binds to antibodies in certain sera of systemic lupus and Sjogren patients which contain anti-Ro/SSA antibodies, it is highly conserved among species, and it is located in the endoplasmic and sarcoplasmic reticulum where it may bind calcium. The amino terminus of calreticulin interacts with the DNA-binding domain of the glucocorticoid receptor and prevents the receptor from binding to its specific glucocorticoid response element. Calreticulin can inhibit the binding of androgen receptor to its hormone-responsive DNA element and can inhibit androgen receptor and retinoic acid receptor transcriptional activities in vivo, as well as retinoic acid-induced neuronal differentiation. Thus, calreticulin can act as an important modulator of the regulation of gene transcription by nuclear hormone receptors. Systemic lupus erythematosus is associated with increased autoantibody titers against calreticulin but calreticulin is not a Ro/SS-A antigen. Earlier papers referred to calreticulin as an Ro/SS-A antigen but this was later disproven. Increased autoantibody titer against human calreticulin is found in infants with complete congenital heart block of both the IgG and IgM classes. [provided by RefSeq, Jul 2008]

Synonyms: cC1qR; CRT; HEL-S-99n; RO; SSA

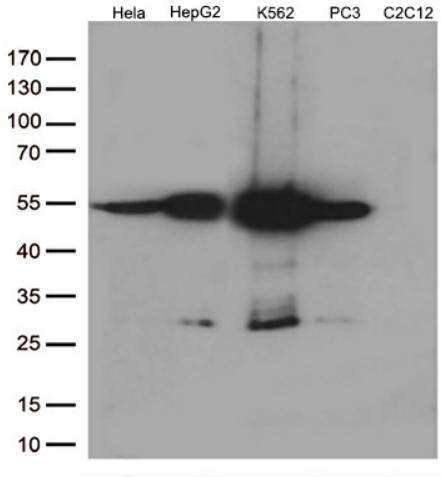
Protein Families: Druggable Genome, Secreted Protein, Transcription Factors

Protein Pathways: Antigen processing and presentation

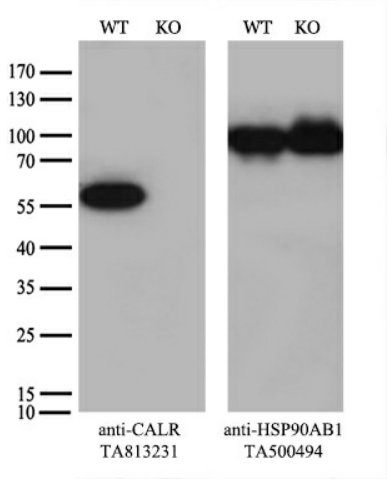
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CALR (Cat# [RC203222], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CALR (Cat# [TA813231])(1:500).



Western blot analysis of extracts (35ug) from 5 different cell lines by using anti-CALR monoclonal antibody (1:500).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and CALR-Knockout HeLa cells (KO, Cat# [LC831130]) were separated by SDS-PAGE and immunoblotted with anti-CALR monoclonal antibody [TA813231] (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.