



Category: Monoclonal Antibodies Cat. #: MAB-606020181
Product Name: Mouse Monoclonal Antibody to Calreticulin

Western Blotting

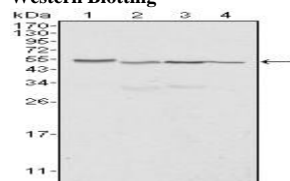


Figure 1: Western blot analysis using Calreticulin mAb against Hela (1), A549 (2), NTERA2 (3) and MCF-7 (4) cell lysate

Western Blotting

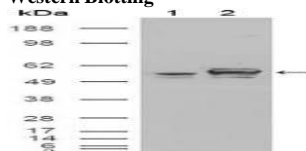


Figure 2: Western blot analysis using Calreticulin mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY Calreticulin cDNA(2).

Lot#:

Clone#: 1G6A7 Entrez Gene: 811

Host and isotype: Mouse IgG2a

Size: 0.1ml

MW: 48kDa

Aliases: RO; CRT; SSA; cC1qR; FLJ26680; CALR

Species reactivity: Human; Mouse

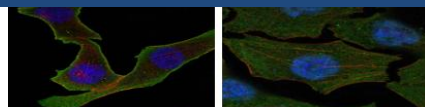


Figure 5: Confocal immunofluorescence analysis of SKBR-3 (left) and A549 (right) cells using Calreticulin mAb (green). Red: Actin filaments labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

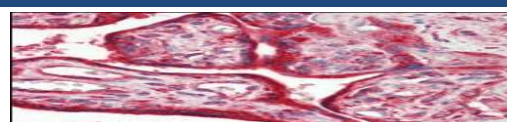


Figure 3: Immunohistochemical analysis PEFF human placenta tissues using Calreticulin mAb.

Description

Calreticulin, also known as RO, CRT, SSA, cC1qR, FLJ26680, CALR. Entrez Protein NP_004334. It 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, thus 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. Highly conserved among species, it is located in the endoplasmic and sarcoplasmic reticulum where it may bind calcium. Calreticulin's amino terminus 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. 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 incorrectly referred to calreticulin as an Ro/SS-A antigen. Increased autoantibody titer against human calreticulin is found in infants with complete congenital heart block of both the IgG and IgM classes.

Immunogen

Synthetic peptide corresponding to aa (EEEDVPGQAKDELCL) of human Calreticulin, conjugated to KLH.

Applications

Western Blotting: 1/500 - 1/2000.

Immunohistochemistry: 1/200 - 1/1000.

Immunofluorescence: 1/200 - 1/1000.

ELISA: Propose dilution 1/10000.

Not yet tested in other applications.

Determining optimal working dilutions by titration test.

Formulation

Ascitic fluid containing 0.03% sodium azide.

Storage

Store at 4°C, for long term storage, store at -20°C.

Related product

References

1. J Biol Chem. 2006 May 5;281(18):12841-8. Epub 2006 Mar 9.
2. Biochim Biophys Acta. 2006 May;1760(5):745-53. Epub 2006 Feb 28.

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