

Calpastatin Monoclonal Antibody (SP82)

Catalog Number      MA5-16327

Product data sheet

Details		Species Reactivity	
Size	500 µL	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Tested Applications	
Class	Monoclonal	Flow Cytometry (Flow)	1:100-1:200
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	1:100
Clone	SP82	Western Blot (WB)	1:500
Immunogen	Synthetic peptide derived from near C-terminus of human calpastatin protein.	Immunocytochemistry (ICC/IF)	1:25
		* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Conjugate	Unconjugated		
Form	Liquid		
Purification	Protein A/G		
Storage buffer	PBS, pH 7.6, with 1% BSA		
Contains	0.1% sodium azide		
Storage Conditions	4° C, do not freeze		

Product specific information

Heat-mediated antigen retrieval is recommended prior to staining, using a 10mM citrate buffer, pH 6.0, for 10 minutes followed by cooling at room temperature for 20 min. Following antigen retrieval, incubate samples with primary antibody for 30 min at room temperature. A suggested positive control is breast ductal carcinoma.

Background/Target Information

Calpastatin is an endogenous calpain (calcium-dependent cysteine protease) inhibitor. It consists of an N-terminal domain L and four repetitive calpain-inhibition domains (domains 1-4), and it is involved in the proteolysis of amyloid precursor protein. The calpain/calpastatin system is involved in numerous membrane fusion events, such as neural vesicle exocytosis and platelet and red-cell aggregation. The protein is also thought to affect the expression levels of genes encoding structural or regulatory proteins.

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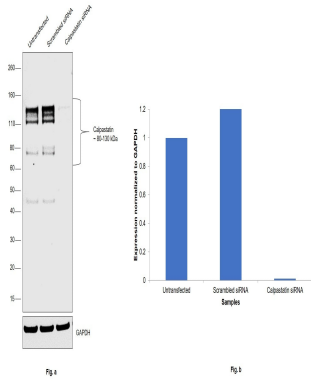
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## Product Images For Calpastatin Monoclonal Antibody (SP82)

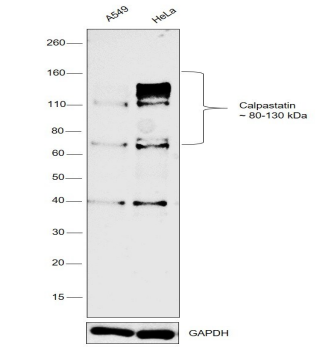
### Calpastatin Antibody (MA5-16327)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with CAST siRNA and decrease in signal intensity was observed in Western blot application using Anti-Calpastatin Monoclonal Antibody (SP82) (Product # MA5-16327). {KD}



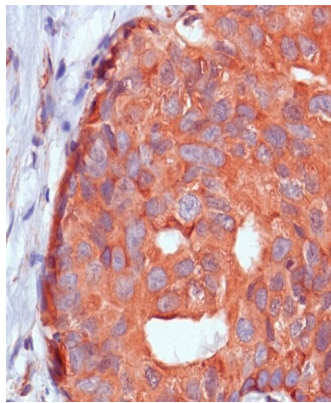
### Calpastatin Antibody (MA5-16327) in WB

Western blot was performed using Anti-Calpastatin Monoclonal Antibody (SP82) (Product # MA5-16327) and bands at 80-130 kDa corresponding to Calpastatin was observed in all the cell lines tested. Whole cell extracts (30 µg lysate) of A549 (Lane 1) and HeLa (Lane 2) were electrophoresed using Novex® NuPAGE® 4-12% Bis-Tris gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:500 dilution) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005)..



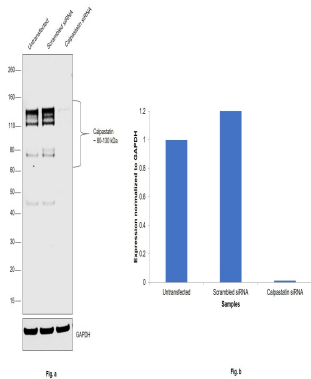
### Calpastatin Antibody (MA5-16327) in IHC (P)

Immunohistochemical analysis of Calpastatin using anti-Calpastatin Monoclonal Antibody (Product # MA5-16327) in Breast Carcinoma Cancer Tissue. The recommended dilution for this antibody in immunohistochemistry applications is 1:100.



### Calpastatin Antibody (MA5-16327) in WB

Knockdown of Calpastatin was achieved by transfecting HeLa cells with Calpastatin specific siRNAs (Silencer® select Product # s2398, s2399). Western blot analysis (Fig. a) was performed using whole cell extracts from Calpastatin knockdown cells (Lane 3), non-specific scrambled siRNA transfected cells (Lane 2) and untransfected cells (Lane 1). The blot was probed with Calpastatin Monoclonal Antibody (SP82) (Product # MA5-16327, 1:500 dilution) and Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000 dilution). Densitometric analysis of this western blot is shown in histogram (Fig. b). Decrease in signal upon siRNA mediated knock down confirms that antibody is specific to Calpastatin.



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