

CD55 Polyclonal Antibody

Catalog NumberPA5-21532

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human
Host/Isotope	Rabbit / IgG	Tested Applications	
Class	Polyclonal	Western Blot (WB)	1:500-1:3,000
Type	Antibody	Immunocytochemistry (ICC/IF)	1:100-1:1,000
Immunogen	Recombinant protein fragment contain a sequence corresponding to a region within amino acids 71 and 330 (P08174) of CD55	* 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		
Concentration	1 mg/mL		
Purification	Antigen affinity chromatography		
Storage buffer	0.1M tris glycine, pH 7, with 10% glycerol		
Contains	0.01% thimerosal		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

Recommended positive controls: K562, THP-1. Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

Background/Target Information

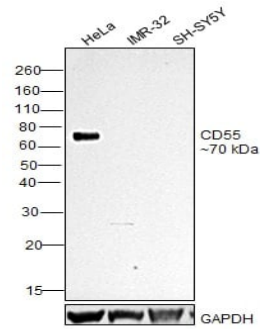
CD55 (decay-accelerating factor, DAF) is a GPI-anchored membrane glycoprotein that protects autologous cells from classical and alternative pathway of complement cascade. Bidirectional interactions between CD55 and CD97 are involved in T cell regulation and CD55 can regulate complement when bound to CD97. In tumors, CD55 promotes neoangiogenesis, tumorigenesis, invasiveness and evasion of apoptosis. CD55 is a 70 kDa glycoprotein (in erythrocytes) anchored in the membrane by glycosylphosphatidylinositol tail. In other cells, the apparent molecular weight is somewhat larger for CD55 and has a substantial content of O-glycans. CD55 binds to activated C4b or C3b complement fragments on the cell surface, preventing the assembly and accelerating the decay of both classical and alternative pathways. CD55 carries the Cromer related blood group antigens. Two alternatively spliced transcripts encoding CD55 have been identified, and the predominant transcript encodes a membrane-bound protein expressed on cells exposed to plasma component proteins but an alternatively spliced transcript produces a soluble protein present at much lower levels. CD55 has been studied to have a role in prostate cancer growth and survival.

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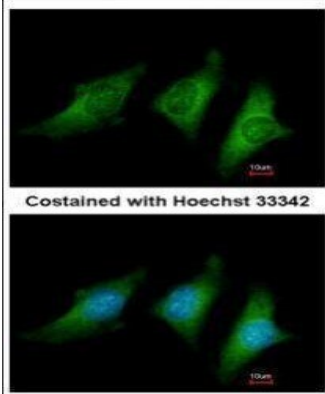
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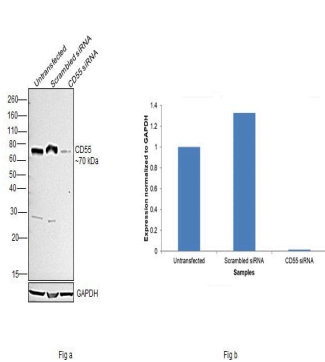
CD55 Antibody (PA5-21532) in WB

Western Blot was performed using Anti-CD55 Polyclonal Antibody (Product # PA5-21532) and a 70 kDa band corresponding to Complement decay-accelerating factor was observed across positive cell line (HeLa); and not across negative cell lines (IMR-32 and SH-SY5Y). Whole cell extracts (30 µg lysate) of HeLa (Lane 1), IMR-32 (Lane 2) and SH-SY5Y (Lane 3) were electrophoresed using NuPAGE™ 10% Bis-Tris Protein Gel (Product # NP0302BOX). 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 (1:1000 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).



CD55 Antibody (PA5-21532) in ICC/IF

Immunofluorescence analysis of methanol-fixed HeLa, using CD55 antibody (Product # PA5-21532) at 1:200 dilution.



CD55 Antibody (PA5-21532) in WB

Knockdown of Complement decay-accelerating factor was achieved by transfecting HeLa with Complement decay-accelerating factor specific siRNAs (Silencer® select Product # S534833, S3906). Western Blot analysis (Fig. a) was performed using Whole cell extracts from the Complement decay-accelerating factor knockdown cells (lane 3), non-targeting scrambled siRNA transfected cells (lane 2) and untransfected cells (lane 1). The Blot was probed with CD55 Polyclonal Antibody (Product # PA5-21532, 1:1000 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 Complement decay-accelerating factor.

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