

Table SI. List of antibodies, suppliers, catalogue numbers and dilution ratios used for analyses.

A, Primary antibodies			
Antibody	Supplier	Catalogue number	Dilution ratio
TRPC7 [S64A-36], mouse monoclonal antibody	GeneTex, Inc.	GTX42022	Immunohistochemistry staining: 1:100 Immunoblot analysis: 1:1,000
GAPDH, rabbit polyclonal antibody	GeneTex, Inc.	GTX100118	1:5,000
β -Actin, rabbit polyclonal antibody	GeneTex, Inc.	GTX109639	1:1,000
GFP, rabbit polyclonal antibody	GeneTex, Inc.	GTX113617	1:5,000
Phospho-CaMKII Antibody (22B1), mouse monoclonal antibody	Santa Cruz Biotechnology, Inc.	sc-32289	1:100
CaMKII α / β / γ / δ (G-1), mouse monoclonal antibody	Santa Cruz Biotechnology, Inc.	sc-5306	1:800
Phospho-Akt (Ser473) (D9E) XP®, rabbit monoclonal antibody	Cell Signaling Technology, Inc.	#4060	1:2,000
Akt (pan) (C67E7), rabbit monoclonal antibody	Cell Signaling Technology, Inc.	#4691	1:1,000
p44/42 MAPK (Erk1/2) (137F5), rabbit monoclonal antibody	Cell Signaling Technology, Inc.	#4695	1:1,000
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (197G2), rabbit monoclonal antibody	Cell Signaling Technology, Inc.	#4377	1:1,000
B, Secondary antibodies			
Antibody	Supplier	Catalogue number	Dilution ratio
Goat Anti-Rabbit IgG antibody (HRP), goat polyclonal antibody	GeneTex, Inc.	GTX213110-01	1:2,000
Mouse IgG (H&L) antibody Peroxidase Conjugated Pre-adsorbed, goat polyclonal antibody	Rockland Immunochemicals, Inc.	610-1302	1:2,000

CaMKII, Ca²⁺/calmodulin-dependent protein kinase II; TRPC7, transient receptor potential canonical 7.

Table SII. Transient receptor potential canonical 7 signaling cascade is significantly associated with diseases and functions through Ingenuity Pathway Analysis.

Diseases or functions	P-value
Cell Signaling	5.19×10^{-10} - 6.51×10^{-4}
Cell-to-Cell Signaling and Interaction	1.34×10^{-8} - 7.75×10^{-4}
Molecular Transport	2.13×10^{-7} - 1.42×10^{-3}
Cellular Function and Maintenance	2.68×10^{-7} - 1.42×10^{-3}
Organismal Injury and Abnormalities	2.28×10^{-6} - 7.17×10^{-2}
Cancer	1.88×10^{-5} - 3.49×10^{-2}
Post-Translation Modification	5.19×10^{-10} - 1.79×10^{-4}
Protein synthesis	5.19×10^{-10} - 1.79×10^{-4}
Cellular Growth and Proliferation	1.34×10^{-8} - 4.42×10^{-2}
Cell Cycle	4.01×10^{-8} - 5.17×10^{-4}
Cellular Development	4.01×10^{-8} - 4.42×10^{-2}
Tissue Development	4.01×10^{-8} - 1.38×10^{-2}
Cell Morphology	2.68×10^{-7} - 2.58×10^{-3}