**Stim1 (A-8): sc-166840**

**BACKGROUND**

Ca\(^{2+}\) influx is essential for a variety of cellular functions including, secretion and transcription. Stromal interaction molecule 1 (Stim1) is an ubiquitously expressed cell surface transmembrane glycoprotein that plays a role in mediating Ca\(^{2+}\) influx following the depletion of intracellular Ca\(^{2+}\) stores. Stim1 functions in the endoplasmic reticulum (ER) where it acts as a Ca\(^{2+}\) sensor via its EF-hand domain which causes large conformational changes. When Ca\(^{2+}\) levels drop, Stim1 translocates from the ER to the plasma membrane, where it activates the Ca\(^{2+}\) release-activated Ca\(^{2+}\) (CRAC) channel subunit, TMEM14A/Orai1. Stim2 is a potent inhibitor of Stim1-mediated store-operated calcium (SOC) entry. Stim1 is implicated in tumor growth suppression and stromal-haematoipoietic cell interactions.

**CHROMOSOMAL LOCATION**

Genetic locus: STIM1 (human) mapping to 11p15.4; Stim1 (mouse) mapping to 7 E3.

**SOURCE**

Stim1 (A-8) is a mouse monoclonal antibody raised against amino acids 441-620 mapping near the C-terminus of Stim1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Stim1 (A-8) is available conjugated to agarose (sc-166840 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166840 HRP), 200 µg/ml, for WB, IHC(P); and ELISA; to either phycerythrin (sc-166840 PE), fluorescein (sc-166840 FITC), Alexa Fluor® 488 (sc-166840 AF488), Alexa Fluor® 568 (sc-166840 AF568), Alexa Fluor® 594 (sc-166840 AF594) or Alexa Fluor® 647 (sc-166840 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166840 AF680) or Alexa Fluor® 790 (sc-166840 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Stim1 (A-8) is recommended for detection of Stim1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Stim1 siRNA (h): sc-76589, Stim1 siRNA (r): sc-70596, Stim1 shRNA Plasmid (h): sc-76589-5H, Stim1 shRNA Plasmid (m): sc-76590-5H, Stim1 shRNA Plasmid (r): sc-70596-5H, Stim1 shRNA (h) Lentiviral Particles: sc-76589-5V, Stim1 shRNA (m) Lentiviral Particles: sc-76590-5V and Stim1 shRNA (r) Lentiviral Particles: sc-70596-5V.

Molecular Weight of Stim1: 86 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.