

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human STIM1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human STIM2 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 705111
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STIM1 Leu23-Thr182 Accession # Q13586
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

STIM-1 (stromal interaction molecule 1), previously called GOK, is a 90 kDa type I transmembrane protein of the endoplasmic reticulum (ER). When STIM-1 senses depletion of calcium in the ER via its EF-hand domain (aa 63-98), it interacts with the plasma membrane Ca²⁺ release-activated Ca²⁺ (CRAC) channel Orai1, increasing Ca²⁺ influx. The human STIM-1 extracellular/luminal domain (aa 23-213) contains an EF hand Ca²⁺-binding motif and a SAM (sterile a-motif) multimerization domain. A potential isoform is truncated at aa 491. Defects in STIM1 are the cause of immune dysfunction with T-cell inactivation due to calcium entry defect type 2 (IDTICED2). Within the region used as an immunogen, human STIM1 shares 95% amino acid identity with mouse and rat STIM1.

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