

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STIM1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human STIM2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 705129
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 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RGD1 and 0.09% Sodium Azide
<p>*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.</p>	

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.

Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
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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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