

DESCRIPTION

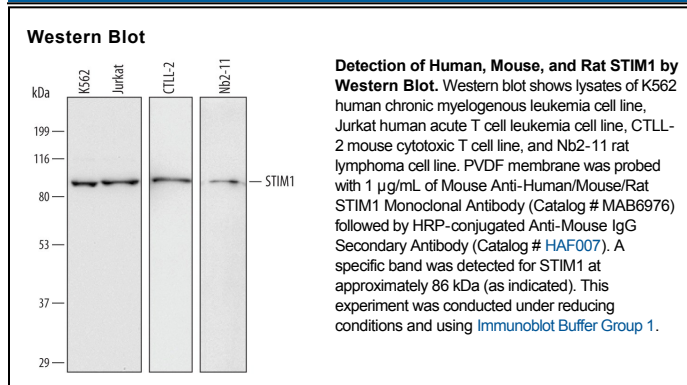
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human STIM1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human STIM2 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 705111
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STIM1 Leu23-Thr182 Accession # Q13586
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.