

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
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

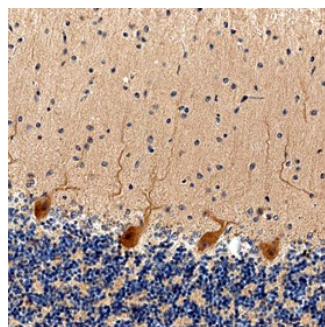
APPLICATIONS

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
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



STIM1 in Human Brain. STIM1 was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Mouse Anti-Human STIM1 Monoclonal Antibody (Catalog # MAB69761) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in Purkinje neurons. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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.