

Basic Information

Product Name	Anti-STIM1 Antibody (Clone#HEC-19)		
Gene Name	STIM1		
Source	Rabbit		
Clonality	Monoclonal		
Isotype	IgG		
Species Reactivity	human, mouse, rat		
Tested Application	WB, IHC, IP		
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.		
Immunogen	A synthesized peptide derived from human Stromal interaction molecule 1		
Concentration	500 ug/ml		
Purification	Affinity-chromatography		
Observed MW	85-97 kDa		
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC):1:50-200 ImmunoPrecipitation (IP): 1:20		

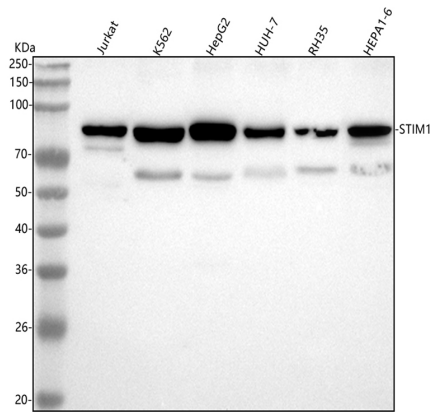
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Stromal interaction molecule 1 is a protein that in humans is encoded by the STIM1 gene. STIM1 has a single transmembranedomain, and is localized to the endoplasmic reticulum, and to a lesser extent to the plasma membrane. This gene encodes a type 1 transmembrane protein that mediates Ca²⁺ influx after depletion of intracellular Ca²⁺ stores by gating of store-operated Ca²⁺ influx channels (SOCs). It is one of several genes located in the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. This gene may play a role in malignancies and disease that involve this region, as well as early hematopoiesis, by mediating attachment to stromal cells. Mutations in this gene are associated with fatal classic Kaposi sarcoma, immunodeficiency due to defects in store-operated calcium entry (SOCE) in fibroblasts, ectodermal dysplasia and tubular aggregate myopathy. This gene is oriented in a head-to-tail configuration with the ribonucleotide reductase 1 gene (RRM1), with the 3' end of this gene situated 1.6 kb from the 5' end of the RRM1 gene. Alternative splicing of this gene results in multiple transcript variants.

Selected Validation Data



Western blot analysis of anti-STIM1 antibody (BM4723). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human HUH-7 whole cell lysates,

Lane 5: rat RH-35 whole cell lysates,

Lane 6: mouse Hepa1-6 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-STIM1 antigen affinity purified monoclonal antibody (BM4723) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for STIM1 at approximately 85 kDa. The expected band size for STIM1 is at 77 kDa.