Anti-Stromal interaction molecule 1 Antibody [SD0814]

ET1612-53

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IP
Molecular Wt:	Predicted band size: 77 kDa
Clone number:	SD0814

Description: Ca2+ influx is essential for a variety of cellular functions including, secretion and transcription. Stromal interaction molecule 1 (Stim1) is a ubiquitously expressed cell surface transmembrane glycoprotein that plays a role in medi-ating Ca2+ influx following the depletion of intracellular Ca2+ stores. Stim1 functions in the endoplasmic reticulum (ER) where it acts as a Ca2+ sensor via its EF-hand domain which causes large conformational changes. When Ca2+ levels drop, Stim1 translocates from the ER to the plasma membrane, where it activates the Ca2+ release-activated Ca2+ (CRAC) channel subunit, TMEM142A/Orai1. Stim2 is a potent inhibitor of Stim1-mediated store-operated calcium (SOC) entry. Stim1 is implicated in tumor growth suppression and stromal-hematopoietic cell interactions.

Immunogen: Recombinant protein within Human Stromal aa 561-685 / 685.

Positive control: SH-SY5Y cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, Human lung tissue lysate, Mouse thymus tissue lysate, Rat thymus tissue lysate, human thyroid tissue, mouse skeletal muscle tissue, mouse testis tissue, rat testis tissue.

Subcellular location: Cell membrane, Endoplasmic reticulum membrane, Cytoplasm, Sarcoplasmic reticulum.

Database links: SwissProt: Q13586 Human | P70302 Mouse | P84903 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:50-1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

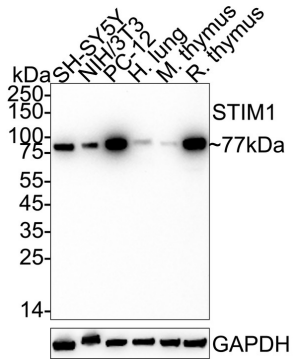

Fig1: Western blot analysis of Stromal interaction molecule 1 on different lysates with Rabbit anti-Stromal interaction molecule 1 antibody (ET1612-53) at 1/1,000 dilution.

Lane 1: SH-SY5Y cell lysate (20 µg/Lane)
Lane 2: NIH/3T3 cell lysate (20 µg/Lane)
Lane 3: PC-12 cell lysate (20 µg/Lane)
Lane 4: Human lung tissue lysate (40 µg/Lane)
Lane 5: Mouse thymus tissue lysate (40 µg/Lane)
Lane 6: Rat thymus tissue lysate (40 µg/Lane)

Predicted band size: 77 kDa
Observed band size: 77 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1612-53) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

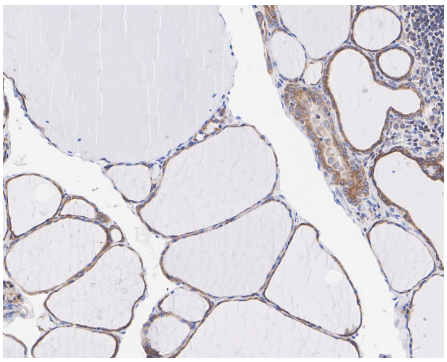

Fig2: Immunohistochemical analysis of paraffin-embedded human thyroid tissue with Rabbit anti-Stromal interaction molecule 1 antibody (ET1612-53) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1612-53) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

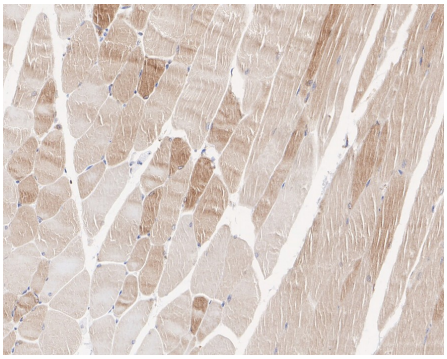

Fig3: Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue with Rabbit anti-Stromal interaction molecule 1 antibody (ET1612-53) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1612-53) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

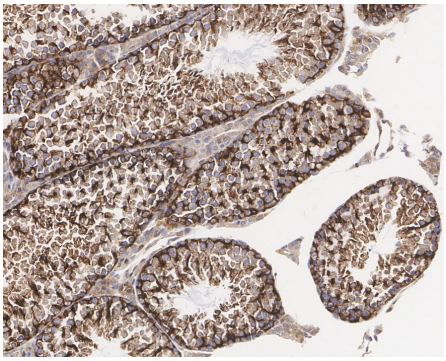

Fig4: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-Stromal interaction molecule 1 antibody (ET1612-53) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1612-53) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

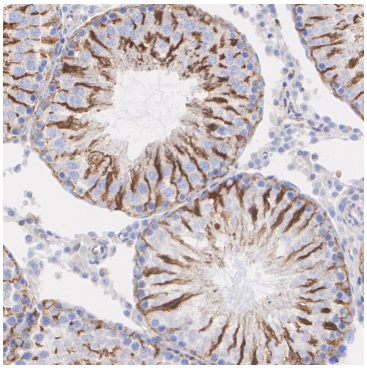

Fig5: Immunohistochemical analysis of paraffin-embedded rat testis tissue with Rabbit anti-Stromal interaction molecule 1 antibody (ET1612-53) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1612-53) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Li Y et al. High expression of STIM1 in the early stages of diffuse axonal injury. Brain Res 1495:95-102 (2013).
2. Liu, H. et al. Calcium entry via ORAI1 regulates glioblastoma cell proliferation and apoptosis. Exp. Mol. Pathol.. 91: 753-760 (2011).