SANTA CRUZ BIOTECHNOLOGY, INC.

Sec61β (E-6): sc-393633

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Sec61 complex forms the core element of the protein translation complex in the rough endoplasmic reticulum membrane. The complex also associates with two ubiquitous ER membrane proteins: Sec62 (also designated human translocation protein 1 or HTP1) and Sec63. The complex forms a two-way channel that transports proteins both into the ER and back to the cytosol for degradation. Specifically, it appears the β subunit facilitates the escort of proteins back to the cytoplasm for degradation by the proteasome or by other proteolytic systems.

CHROMOSOMAL LOCATION

Genetic locus: SEC61B (human) mapping to 9q22.33; Sec61b (mouse) mapping to 4 B1.

SOURCE

Sec61β (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 39-58 within a cytoplasmic domain of Sec61β of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Sec61β (E-6) is available conjugated to agarose (sc-393633 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393633 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393633 PE), fluorescein (sc-393633 FITC), Alexa Fluor® 488 (sc-393633 AF488), Alexa Fluor® 546 (sc-393633 AF546), Alexa Fluor® 594 (sc-393633 AF594) or Alexa Fluor® 647 (sc-393633 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393633 AF680) or Alexa Fluor® 790 (sc-393633 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393633 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Sec61β (E-6) is recommended for detection of Sec61β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Sec61β siRNA (h): sc-106868, Sec61β siRNA (m): sc-155966, Sec61β shRNA Plasmid (h): sc-106868-SH, Sec61β shRNA Plasmid (m): sc-155966-SH, Sec61β shRNA (h) Lentiviral Particles: sc-106868-V and Sec61β shRNA (m) Lentiviral Particles: sc-155966-V.

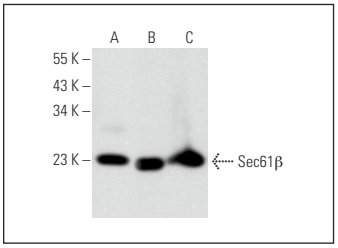
Molecular Weight of Sec61β: 9 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Jurkat whole cell lysate: sc-2204 or NAMALWA cell lysate: sc-2234.

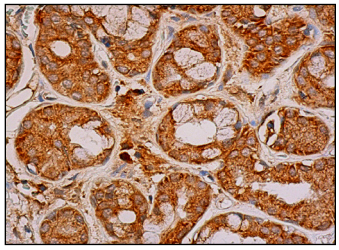
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Sec61β (E-6): sc-393633. Western blot analysis of Sec61β expression in Daudi (**A**), Jurkat (**B**) and NAMALWA (**C**) whole cell lysates.



Sec61β (E-6): sc-393633. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Wang, W., et al. 2017. TRIM37, a novel E3 ligase for PEX5-mediated peroxisomal matrix protein import. J. Cell Biol. 216: 2843-2858.
2. You, X., et al. 2018. PYR-41 and thalidomide impair dendritic cell cross-presentation by inhibiting myddosome formation and attenuating the endosomal recruitments of p97 and Sec61 via NFκB inactivation. J. Immunol. Res. 2018: 5070573.
3. Pergu, R., et al. 2019. The chaperone ERp29 is required for tunneling nanotube formation by stabilizing MSec. J. Biol. Chem. 294: 7177-7193.
4. Jiang, X., et al. 2020. FAM134B oligomerization drives endoplasmic reticulum membrane scission for ER-phagy. EMBO J. 39: e102608.
5. Wang, S.M., et al. 2021. Genomic action of σ-1 receptor chaperone relates to neuropathic pain. Mol. Neurobiol. 58: 2523-2541.
6. Roney, J.C., et al. 2021. Lipid-mediated motor-adaptor sequestration impairs axonal lysosome delivery leading to autophagic stress and dystrophy in Niemann-Pick type C. Dev. Cell 56: 1452-1468.e8.
7. Jin, S., et al. 2022. Suppression of ACE2 SUMOylation protects against SARS-CoV-2 infection through TOLLIP-mediated selective autophagy. Nat. Commun. 13: 5204.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.