SANTA CRUZ BIOTECHNOLOGY, INC.

# Syntaxin 7 (C-20): sc-16792

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*The Power to Question*

## BACKGROUND

Correct vesicular transport is essential to the survival of eukaryotic cells. This process is determined by specific pairing of vesicle-associated SNAREs (v-SNAREs) with those on the target membrane (t-SNAREs). This complex then recruits soluble NSF attachment proteins (SNAPs) and N-ethylmaleimide-sensitive factor (NSF) to form the highly stable SNAP receptor (SNARE) complex. The formation of a SNARE complex pulls the vesicle and target membrane together and may provide the energy to drive fusion of the lipid bilayers. Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain carboxy-terminal hydrophobic domains that direct themselves to their respective intracellular compartments. Syntaxin 7 binds α-SNAP *in vitro* and forms a complex with Syntaxin 8, vti1b and VAMP-8 that functions in the fusion of late endosomes. *In vitro,* the abundant expression of Syntaxin 7 in B16 melanoma cells increases as they undergo melanogenesis. A SNARE complex between Syntaxin 7 and VAMP7 or VAMP8 may regulate the fusion events that eventually lead to melanogenesis.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: STX7 (human) mapping to 6q23.2; Stx7 (mouse) mapping to 10 A4.

## SOURCE

Syntaxin 7 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Syntaxin 7 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16792 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Syntaxin 7 (C-20) is recommended for detection of Syntaxin 7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Syntaxin 7 (C-20) is also recommended for detection of Syntaxin 7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Syntaxin 7 siRNA (h): sc-41334, Syntaxin 7 siRNA (m): sc-41335, Syntaxin 7 shRNA Plasmid (h): sc-41334-SH, Syntaxin 7 shRNA Plasmid (m): sc-41335-SH, Syntaxin 7 shRNA (h) Lentiviral Particles: sc-41334-V and Syntaxin 7 shRNA (m) Lentiviral Particles: sc-41335-V.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## RESEARCH USE

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