SANTA CRUZ BIOTECHNOLOGY, INC.

# Tom34 (C-20): sc-85968

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The mitochondrial preprotein translocases of the outer membrane (Tom) form a multi-subunit complex that facilitates the import of nuclear-encoded precursor proteins across the mitochondrial outer membrane. The Tom machinery consists of import receptors for the initial binding of cytosolically synthesized preproteins, and a general import pore (GIP) for the membrane translocation of various preproteins into the mitochondrion. Tom34 (translocase of outer mitochondrial membrane 34), also known as TOMM34, URCC3 or HTOM34P, is a ubiquitously expressed 309 amino acid protein that contains 6 TPR repeats. Localized to the cytoplasmic side of the mitochondrion, Tom34 functions as a chaperone-like protein that binds the mature portion of unfolded proteins and guides their import into mitochondria. In addition, Tom34 is thought to have weak ATPase activity and may interact with other organelles within the cell. Expression of Tom34 is upregulated in colon cancer cells and is thought to be involved in tumor progression. Tom34 may, therefore, be a novel target for therapeutic anti-cancer drugs.

## REFERENCES


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3. Mukhopadhyay, A., Avramova, L.V. and Weiner, H. 2002. Tom34 unlike Tom20 does not interact with the leader sequences of mitochondrial precursor proteins. Arch. Biochem. Biophys. 400: 97-104.
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## CHROMOSOMAL LOCATION

Genetic locus: TOMM34 (human) mapping to 20q13.12; Tomm34 (mouse) mapping to 2 H3.

## SOURCE

Tom34 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Tom34 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-85968 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Tom34 (C-20) is recommended for detection of Tom34 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

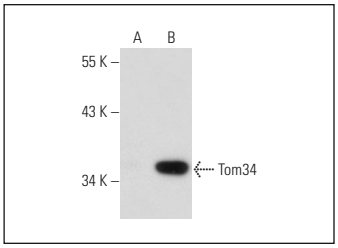
Tom34 (C-20) is also recommended for detection of Tom34 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Tom34 siRNA (h): sc-76712, Tom34 siRNA (m): sc-154551, Tom34 shRNA Plasmid (h): sc-76712-SH, Tom34 shRNA Plasmid (m): sc-154551-SH, Tom34 shRNA (h) Lentiviral Particles: sc-76712-V and Tom34 shRNA (m) Lentiviral Particles: sc-154551-V.

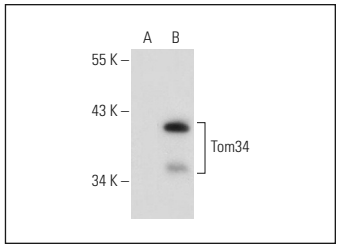
Molecular Weight of Tom34: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Tom34 (h): 293T Lysate: sc-174862.

## DATA




Tom34 (C-20): sc-85968. Western blot analysis of Tom34 expression in non-transfected: sc-110760 (**A**) and human Tom34 transfected: sc-112254 (**B**) 293 whole cell lysates.




Tom34 (C-20): sc-85968. Western blot analysis of Tom34 expression in non-transfected: sc-117752 (**A**) and human Tom34 transfected: sc-174862 (**B**) 293T whole cell lysates.

## 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.