

Datasheet for ABIN968429

**anti-TIMM23 antibody (AA 5-126)**

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## Overview

Quantity:	150 µg
Target:	TIMM23
Binding Specificity:	AA 5-126
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TIMM23 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

## Product Details

Immunogen:	Rat Tim23 aa. 5-126
Clone:	32-Tim23
Isotype:	IgG2a
Cross-Reactivity:	Mouse (Murine), Human
Characteristics:	<ol style="list-style-type: none"><li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>2. Please refer to us for technical protocols.</li><li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li><li>4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li></ol>
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

## Product Details

chromatography.

## Target Details

Target:	TIMM23
Alternative Name:	Tim23 ( <a href="#">TIMM23 Products</a> )
Background:	Mitochondria, the site of cellular energy production, must import all proteins necessary for their function. Import is mediated by two mechanisms: the translocase of the outer membrane (Tom) and the translocase of the inner membrane (Tim). Tim23 and Tim17 are integral membrane proteins that associate to form the import channel for mitochondrial preproteins that contain N-terminal hydrophilic sequences. They also associate with Tim44, an adaptor for the membrane binding of mtHsp70, a matrix heat shock protein, which drives the import of the processed preprotein. The N-terminal intermembrane space domain of Tim23 contains a leucine zipper motif and mediates the formation of a Tim23 dimer. As an imported protein passes through the TOM machinery, its N-terminal matrix targeting sequence interacts with the Tim23 dimer. This induces the dissociation of the dimer and initiation of inner membrane translocation of the presequence. In addition to its 9 kDa N-terminal hydrophilic segment, Tim23 contains a 14 kDa hydrophobic domain with four predicted membrane spans. Thus, Tim23 is an important integral membrane component of the mitochondrial protein translocation machinery.
Molecular Weight:	23 kDa

## Application Details

Restrictions:	For Research Use only
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## Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

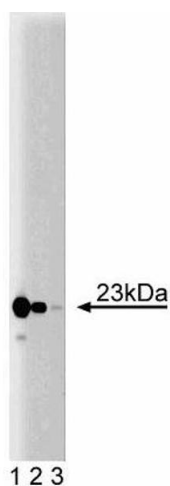
## Handling

Storage Comment: Store undiluted at -20° C.

## Publications

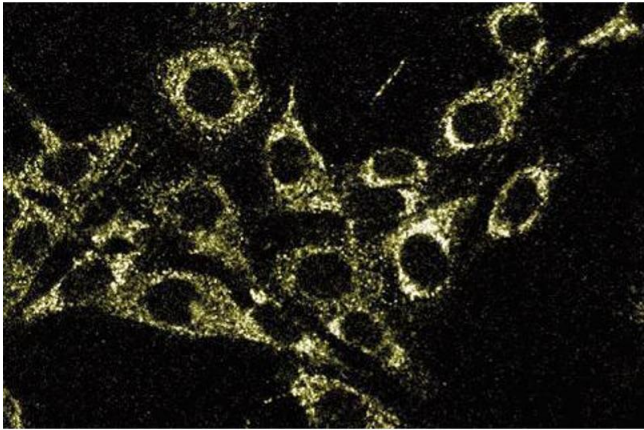
- Product cited in:
- Moro, Sirrenberg, Schneider, Neupert, Brunner: "The TIM17.23 preprotein translocase of mitochondria: composition and function in protein transport into the matrix." in: **The EMBO journal**, Vol. 18, Issue 13, pp. 3667-75, (1999) ([PubMed](#)).
- Rassow, Dekker, van Wilpe, Meijer, Soll: "The preprotein translocase of the mitochondrial inner membrane: function and evolution." in: **Journal of molecular biology**, Vol. 286, Issue 1, pp. 105-20, (1999) ([PubMed](#)).
- Ryan, Leung, Jensen: "Characterization of the mitochondrial inner membrane translocase complex: the Tim23p hydrophobic domain interacts with Tim17p but not with other Tim23p molecules." in: **Molecular and cellular biology**, Vol. 18, Issue 1, pp. 178-87, (1998) ([PubMed](#)).

## Images



### Western Blotting

**Image 1.** Western blot analysis of Tim23 on RSV-3T3 lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of Tim23.



Immunofluorescence

Image 2. RSV-3T3

Image 3.

