

### **TANGO / MIA3 Antibody**

Rabbit Polyclonal Antibody Catalog # ALS13243

## **Specification**

# **TANGO / MIA3 Antibody - Product Information**

Application WB, IF, IHC
Primary Accession
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 214kDa KDa

# TANGO / MIA3 Antibody - Additional Information

### Gene ID 375056

#### **Other Names**

Melanoma inhibitory activity protein 3, C219-reactive peptide, D320, Transport and Golgi organization protein 1, MIA3, KIAA0268, TANGO, TANGO1

### Target/Specificity

Human MIA3. Predicted cross-reactivity based on amino acid sequence homology: bovine (89%).

### **Reconstitution & Storage**

Aliquot and store at -20°C. Minimize freezing and thawing.

### **Precautions**

TANGO / MIA3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **TANGO / MIA3 Antibody - Protein Information**

# Name MIA3 (HGNC:24008)

### **Function**

Plays a role in the transport of cargos that are too large to fit into COPII-coated vesicles and require specific mechanisms to be incorporated into membrane-bound carriers and exported from the endoplasmic reticulum. This protein is required for collagen VII (COL7A1) secretion by loading COL7A1 into transport carriers. It may participate in cargo loading of COL7A1 at endoplasmic reticulum exit sites by binding to COPII coat subunits Sec23/24 and guiding SH3-bound COL7A1 into a growing carrier. Does not play a role in global protein secretion and is apparently specific to COL7A1 cargo loading. However, it may participate in secretion of other proteins in cells that do not secrete COL7A1. It is also specifically required for the secretion of lipoproteins by participating in their export from the endoplasmic reticulum (PubMed:<a

 $href="http://www.uniprot.org/citations/27138255" target="\_blank">27138255</a>, PubMed:<a href="http://www.uniprot.org/citations/19269366" target="_blank">19269366</a>). Required for correct assembly of COPII coat components at endoplasmic reticulum exit sites (ERES) and for the$ 



localization of SEC16A and membrane-bound ER- resident complexes consisting of MIA2 and PREB/SEC12 to ERES (PubMed:<a href="http://www.uniprot.org/citations/28442536" target=" blank">28442536</a>).

## **Cellular Location**

Endoplasmic reticulum membrane; Single-pass membrane protein. Note=Localizes at endoplasmic reticulum exit sites (ERES), also known as transitional endoplasmic reticulum (tER) (PubMed:32101163). SEC16A is required for its proper localization to ERES. After loading of COL7A1 into transport carriers, it is not incorporated into COPII carriers and remains in the endoplasmic reticulum membrane.

### **Tissue Location**

Broadly expressed, except in bone marrow and peripheral blood mononuclear cells. Down-regulated in melanoma tissue

#### Volume

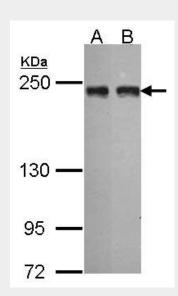
50 µl

# TANGO / MIA3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

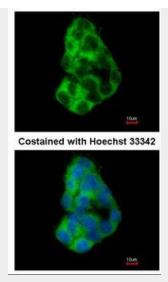
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# TANGO / MIA3 Antibody - Images

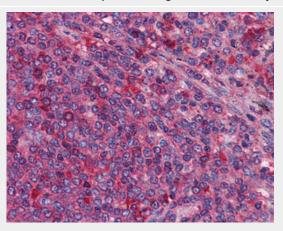


Lane A: A549 (30 ug of whole cell lysate).





Immunofluorescence of methanol-fixed HepG2, using MIA3 antibody at 1:200 dilution.



Anti-MIA3 antibody IHC of human spleen.

# TANGO / MIA3 Antibody - Background

Required for collagen VII (COL7A1) secretion by loading COL7A1 into transport carriers. May participate in cargo loading of COL7A1 at endoplasmic reticulum exit sites by binding to COPII coat subunits Sec23/24 and guiding SH3-bound COL7A1 into a growing carrier. Does not play a role in global protein secretion and is apparently specific to COL7A1 cargo loading. However, it may participate in secretion of other proteins in cells that do not secrete COL7A1.

# **TANGO / MIA3 Antibody - References**

Clark H.F., et al. Genome Res. 13:2265-2270(2003). Ota T., et al. Nat. Genet. 36:40-45(2004). Gregory S.G., et al. Nature 441:315-321(2006). Bosserhoff A.K., et al. Gene Expr. Patterns 4:473-479(2004). Nagase T., et al. DNA Res. 3:321-329(1996).