

RUO DATA SHEET

TRPS1

Concentrated Rabbit Monoclonal Antibody

Intended Use:

For Research Use Only (RUO)

Epitomics' Rabbit Monoclonal Anti-Human TRPS1, Clone EP392, is intended for use to qualitatively identify TRPS1 by light microscopy in sections of formalin-fixed, paraffin-embedded tissue using immunohistochemical detection methodology.

Catalog number	Description	Dilution
AC-0360RUO	0.1 ml, concentrated	1:100-1:200
AC-0360RUOB	0.5 ml, concentrated	1:100-1:200
AC-0360RUOC	1 ml, concentrated	1:100-1:200
AC-0360RUOBULK	2 ml or more, concentrated	1:100-1:200

Immunogen: A synthetic peptide corresponding to residues of human TRPS1 protein

Source: Rabbit Monoclonal Antibody

Clone ID: EP392

Isotype: Rabbit IgG

Application: Immunohistochemistry for formalin-fixed paraffin-embedded tissue

Summary and Explanation:

TRPS1 is an atypical member of the GATA family of transcription factor, which represses transcription of GATA sequence containing genes. It was originally identified in the autosomal dominant tricho-rhino-phalangeal syndrome, where mutation or deletion of *TRPS1* results in craniofacial and skeletal abnormalities.

Studies have implicated TRPS1 in several malignant tumors, including osteosarcoma, breast and colon cancers. Increased expression was detected in 30-60% of tumor cases by immunohistochemistry. TRPS1 upregulation was significantly associated with higher pathological stage and positive lymph node and distant metastasis. Survival analysis correlated high TRPS1 expression with both shorter overall and disease-free survival rates.

TRPS1 is associated with tumor growth, invasion and metastasis. Overexpression of TRPS1 correlated with higher microvessel density (MVD) in breast cancer, as detected by CD31 staining. *In vitro* studies also demonstrated TRPS1 promotion of VEGFA expression. These results support the role of TRPS1 in pathological angiogenesis and promotion of aggressive phenotypes.

Reagent Provided:

Antibody to TRPS1 is affinity purified and diluted in 10 mM phosphate buffered saline (PBS), pH 7.2 containing 1% bovine serum albumin (BSA) and 0.09% sodium azide (NaN₃).

Storage and Stability:

Store at 2-8 °C. Do not use after expiration date provided on the vial. End user must validate any storage conditions other than those specified.

Procedures Recommended:

1. Pretreatment: Epitope retrieval using Tris/EDTA buffer (catalog #: SP-0004) with a pressure cooker.

2. Endogenous peroxidase block: Block for 10 minutes at room temperature using peroxidase solution (catalog #: SP-0002).

3. Protein block: Block for 10 minutes at room temperature using blocking solution (catalog #: SP-0003).

4. Primary antibody: Incubate for 30 minutes.

5. Detection: Follow instructions from the selected detection system (EpiPrecision™, a Biotin Streptavidin-HRP Detection, catalog #: DK-0001, 0003, or EpiVision™, a Rabbit Polymer Detection, catalog # DK-0002, 0004).

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory.

Performance Characteristics:

This antibody gives nuclear staining in positive cells. The recommended positive controls are breast for normal tissue and breast carcinoma for abnormal tissue.

Limitations:

Immunohistochemistry is a complex process. Variation in tissue selection, tissue processing, antigen retrieval, peroxidase activity, detection systems and improper counterstaining may cause variation in results.

References:

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- Hu J, et al.: *Exp Biol Med (Maywood)*. 2014;239(4):423-9.
- Li Z, et al.: *Diagn Pathol*. 2015;10:167.
- Radvanyi L, et al.: *Proc Natl Acad Sci*. 2005;102(31):11005-10.
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- Wu L, et al.: *Oncotarget*. 2014;5(17):7677-90.

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