

## TRPS 1(ZR382)

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 038 A,B,C	0.1,0.5,1.0 mL	1:100
Prediluted	GB 038 AA	6.0mL	Ready to use

### PRODUCT DESCRIPTION -

**TRPS1** (Trichorhinophalangeal Syndrome 1) is a gene that encodes a **transcription factor** involved in the development of several organs and tissues. This gene plays an essential role in regulating the growth and differentiation of cells, particularly in the **hair follicles, bones, and skin**. Mutations in the TRPS1 gene are associated with **Trichorhinophalangeal Syndrome type 1 (TRPS1)**, a genetic disorder that affects hair, facial features, and the development of bones and nails. The syndrome is characterized by sparse or absent hair, distinctive facial features, and skeletal abnormalities.

TRPS1 is a **DNA-binding protein** with specific involvement in regulating genes that control the growth and differentiation of epithelial and mesenchymal cells, making it essential for normal development. In addition to its role in genetic disorders, TRPS1 also has implications in cancer biology, particularly in understanding certain **epithelial** and **mesenchymal** cell-related tumors.

### INTENDED USE -

Intended for In Vitro Diagnostic Applications

**TRPS1 (ZR382)** is a rabbit monoclonal antibody that is intended for professional laboratory use after the initial diagnosis of tumor has been made by conventional histopathology using nonimmunologic histochemical stains, in the qualitative identification of **TRPS1 (ZR382)** protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist as an aid in making any other clinical determinations.

### SUMMARY AND EXPLANATION -

The **TRPS1 (ZR382)** antibody is a monoclonal antibody designed to detect **TRPS1 protein** in tissue samples. The antibody, **ZR382**, is a highly specific tool that recognizes a unique epitope on the TRPS1 protein, and it is primarily used in **immunohistochemistry (IHC)** to identify the presence of TRPS1 in tissues and cells.

This antibody has applications in both **research** and **diagnostic** settings, particularly for studying **TRPS1-related diseases** and understanding the role of TRPS1 in tumor biology.

#### **PRINCIPLE OF PROCEDURE -**

The identification of antigens in tissues and cells is a multi-step immunohistochemistry procedure.

The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to bind the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

**SOURCE** - Rabbit monoclonal

**SPECIES REACTIVITY** - Human; other species not tested

**CLONE**- ZR382

**ISOTYPE** - IgG

**PROTEIN CONCENTRATION** - Call for lot specific Ig concentration.

**EPITOPE/ANTIGEN** - TRPS1

**CELLULAR LOCALISATION** - Nucleus

**POSITIVE TISSUE CONTROL** - Normal breast or breast carcinoma

**KNOWN APPLICATIONS**- Immunohistochemistry

30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

**SUPPLIED AS** - Buffer with protein carrier and preservative

#### **STORAGE AND STABILITY -**

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C

**Materials required but not provided -**

- 1) Positive tissue control -Normal breast or breast carcinoma
- 2) Negative control tissue(internal or external)
- 3) Microscope slides and coverslips
- 4) Staining jars or baths
- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10)Detection system
- 11)Chromogen
- 12)Wash buffer
- 13)Hematoxylin
- 14)Antibody diluents
- 15)Peroxide block
- 16)Light microscope
- 17)Mounting medium

**LIMITATIONS -**

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

