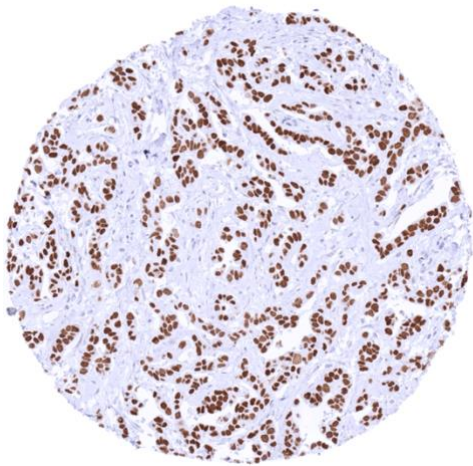


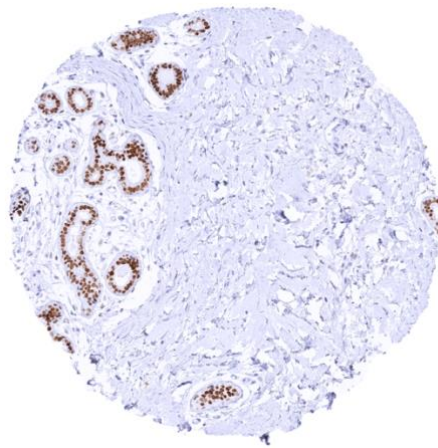
## Anti- TRPS1 Antibody MSVA-512R / Recombinant Rabbit monoclonal

Human SwissProt	Q9UHF7
Human Gene Symbol	TRPS1
Synonyms	GC79; LGCR; Transcriptional repressor GATA binding 1; Trichorhino-phalangeal syndrome type I protein; Trichorhinophalangeal syndrome I; Trichorhinophalangeal syndrome I homolog; TRPS 1; trpS1; TRPS1 gene; TRPS1_HUMAN; Zinc finger protein GC79; Zinc finger transcription factor TRPS 1 antibody
Specificity	TRPS1
Immunogen	Recombinant fragment (around aa900-1100) of human TRPS1 protein (exact sequence is proprietary)
Isotype	Rabbit / IgG, kappa

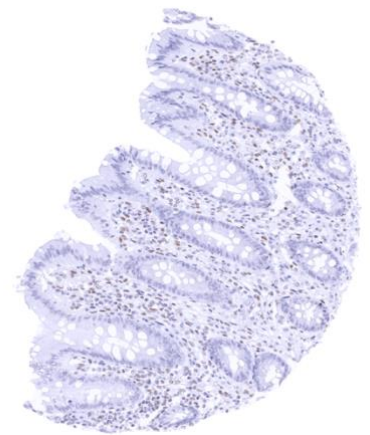
Species Reactivity	Human
Localization	Nucleus
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Breast: A strong TRPS1 staining should be seen in luminal breast epithelial cells. (For low-level TRPS1 detection: Testis: A weak nuclear TRPS1 staining should be seen in spermatogonia.)
Negative Control	Colon: Nuclear TRPS1 staining should be absent in epithelial cells



Invasive breast cancer of no special type (NST) with intense nuclear TRPS1 positivity (Dilution- 1-600).



Intense nuclear TRPS1 staining of luminal (but not basal) breast epithelial cells (Dilution- 1-20).



Appendiceal epithelial cells are TRPS1 negative but nuclear TRPS1 positivity occurs in stromal cells (Dilution- 1-20).

### Biology

TRPS1 (Transcriptional Repressor GATA Binding 1) is a nuclear transcription factor protein mainly acting as a transcriptional repressor. TRPS1 represses GATA-regulated genes by binding to the dynein light chain protein. TRPS1-dynein binding hinders dynein-GATA binding and thus suppresses its transcriptional activity. Several hereditary TRPS1 mutations are known to result in craniofacial and skeletal malformations. TRPS1 can also induce expression of genes such as for example FOXA1, a negative regulator of epithelial mesenchymal transition (EMT). It was suggested that TRPS1 has tumor-suppressive activity by preventing EMT. Among normal tissues, TRPS1 expression predominates in breast tissue but also occurs – at lower levels - in a very broad range of other epithelial and mesenchymal tissues. Among cancers, TRPS1 expression is clearly highest in breast cancer. TRPS1 immunohistochemistry was therefore suggested to serve as a marker for breast cancer. However, TRPS1 expression also occurs - usually at lower levels - in many other tumor entities derived from the female genital tract and from other organs. If TRPS1 should be used as a marker for breast cancer, a much higher dilution is recommended than for low-level TRPS1 detection.

### Potential Research Applications

-The role of TRPS1 in the biology of breast cancer and other tumors needs to be investigated.

-The role of TRPS1 in epithelial mesenchymal transition is under investigation.  
-The diagnostic utility of TRPS1 immunohistochemistry awaits further clarification.

### Protocol Suggestions

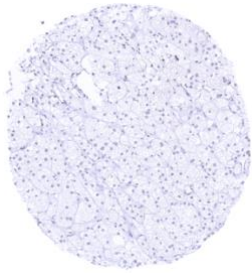
**Dilution: 1:20 is suited for background free detection of low-level TRPS1 expression. Dilution of 1:600 is recommended if breast cancer should be preferentially stained. pH 7,8 is optimal.** Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

### Limitations

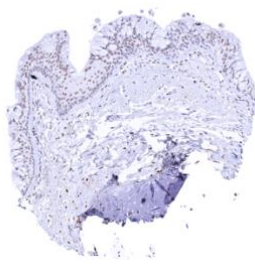
This antibody is available for **research use only** and is not approved for use in diagnostics.

### Warranty

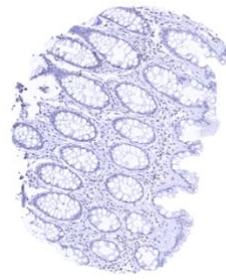
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



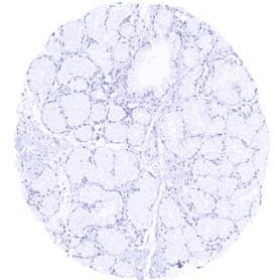
Adrenal gland



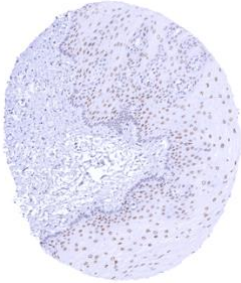
Bronchus, mucosa – Weak to moderate nuclear TRPS1 staining of a fraction of respiratory epithelial cells, mostly basal and of squamous metaplasia



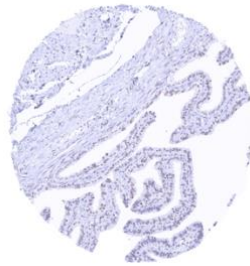
Colon descendens, mucosa – Some nuclear TRPS1 staining in stromal cells



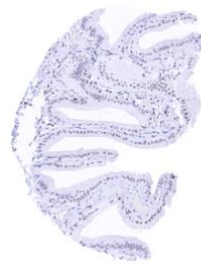
Duodenum, Brunner gland



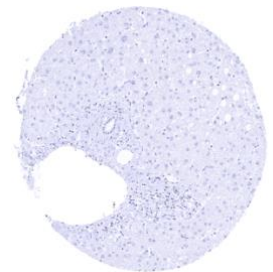
Esophagus, squamous epithelium – Weak nuclear TRPS1 staining of suprabasal squamous epithelial cells



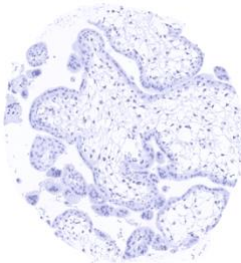
Fallopian tube, mucosa – Weak nuclear TRPS1 staining of a fraction of epithelial cells



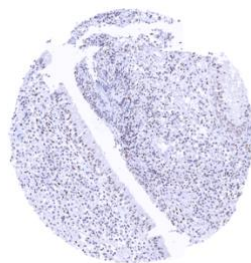
Gallbladder, epithelium – Faint nuclear TRPS1 staining in epithelial cells



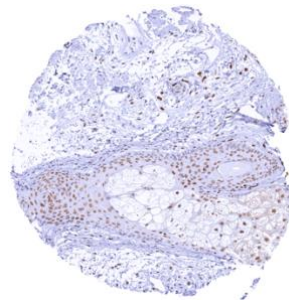
Liver



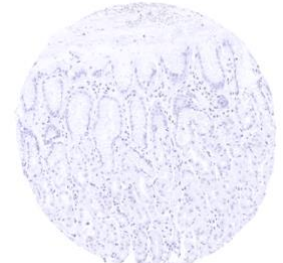
Placenta, early



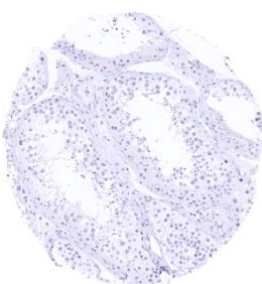
Sinus paranasales – Weak to moderate nuclear TRPS1 staining of a fraction of respiratory epithelial cells and of some stroma cells



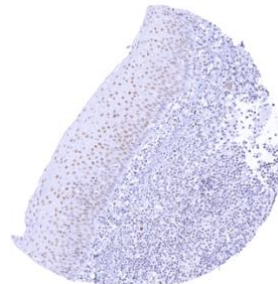
Skin, hairfollicel and sebaceous glands – Moderate to strong nuclear TRPS1 staining of sebaceous gland cells and in epithelial cells of hair follicles



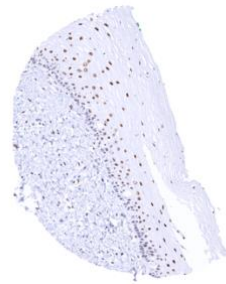
Stomach, antrum



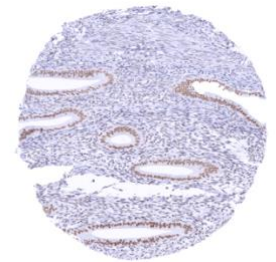
Testis – Weak nuclear TRPS1 staining in spermatogonia



Tonsil, surface epithelium – Weak to moderate nuclear TRPS1 staining in most squamous epithelial cells



Uterus, ectocervix – Moderate nuclear TRPS1 staining of suprabasal squamous epithelial cells



Uterus, endometrium (proliferation) – Moderate nuclear TRPS1 staining of epithelial cells and weak staining of stroma cells