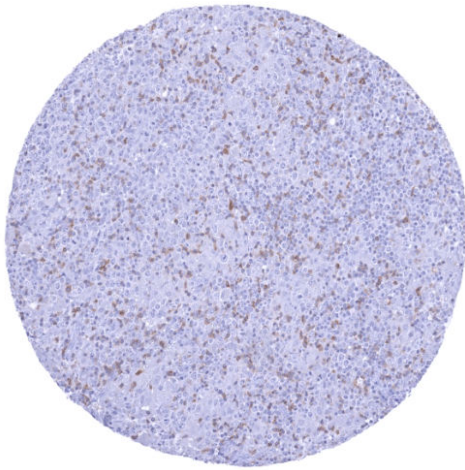


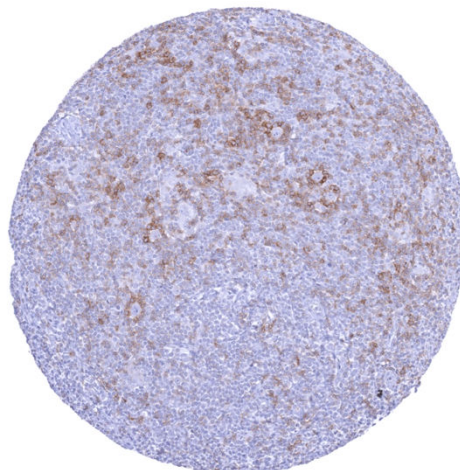
Anti- TIGIT Antibody HMV323 / Recombinant Rabbit monoclonal

Human SwissProt	Q495A1
Human Gene Symbol	TIGIT
Synonyms	T cell immunoreceptor with Ig and ITIM domains , VSIG9 , VSTM3 , WUCAM
Specificity	TIGIT
Immunogen	Recombinant human TIGIT fragment
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Membraneous

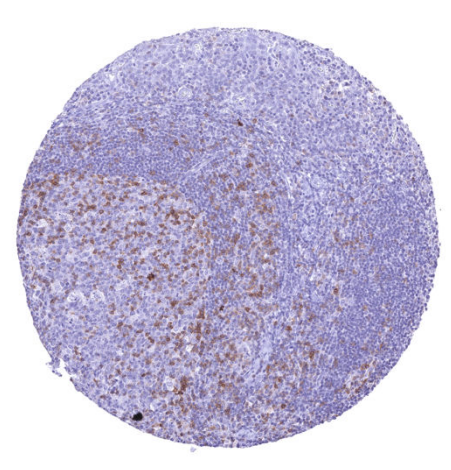
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Tonsil: A moderate to strong TIGIT staining should be seen in a subset of germinal centre cells (CD4+ follicular T helper cells located in the germinal centre periphery orientated towards the tonsil surface epithelium). Subsets of other lymphocytes should also be positive but less intense.
Negative Control	Tonsil: TIGIT staining should be absent in all epithelial cells and in most lymphocytes.



Diffuse large B-cell lymphoma with strong TIGIT positivity of a portion of tumor infiltrating non-neoplastic lymphocytes



Lymph node- Hodgkin's lymphoma with distinct TIGIT positivity of a subset of non-neoplastic lymphocytes surrounding tumor cells



Tonsil with numerous TIGIT positive lymphocytes. The strongest TIGIT staining appears in a subset of lymphocytes in the germinal centre.

Biology

TIGIT (T cell immunoreceptor with Ig and ITIM domains) is a transmembrane glycoprotein of the poliovirus receptor (PVR) family which acts as an inhibitory immune receptor (immune checkpoint). TIGIT can bind to CD155 with high affinity, and to CD112 with lower affinity. TIGIT expression is restricted to subsets of CD8+ cytotoxic T cells, CD4+ T helper cells, FOXP3+ regulatory T cells, and NK cells. The highest level of expression occurs in CD4+ follicular T helper cells. In the tonsil, these are located in the germinal centre periphery orientated towards the tonsil surface epithelium. TIGIT expression has a limiting effect on antitumoral immune reactions. TIGIT inhibition, by either genetic ablation or blocking antibodies, increases T-cell activation and proliferation in response to stimulation and consequently results in reduced tumor growth in experimental models. Various compounds targeting TIGIT have been developed (i.e. tiragolumab, domvanalimab, vibostolimab, etigilimab, m6223, ociperlimab) and are currently evaluated in clinical trials, mostly in combination with other immune checkpoint inhibitors. In cancer, TIGIT is regularly expressed in a variable subset of tumor associated T-cells. TIGIT expression may also occur in some T-cell lymphomas.

Potential Research Applications

- the role of TIGIT as a drug target is under scrutiny.
- the predictive role of TIGIT analysis in tissues is unknown.
- the downstream signaling of TIGIT is not fully understood.

Protocol Suggestions

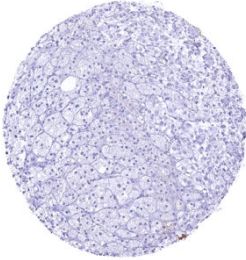
Dilution: 1:200. pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

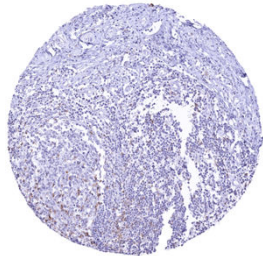
This antibody is available for **research use only** and is not approved for use in diagnostics. The antibody cross-reacts mildly with an unknown nuclear protein occurring in the cerebrum. This should be tolerable for applications outside of the brain.

Warranty

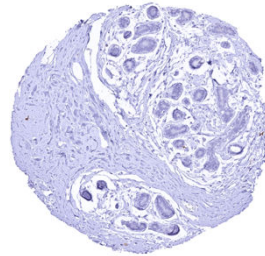
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



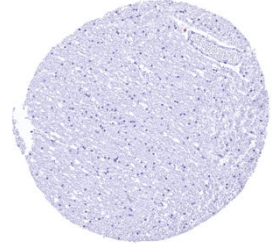
Adrenal gland



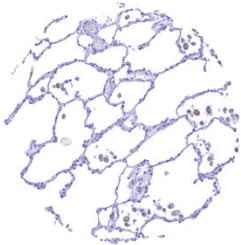
Appendix, mucosa – Distinct TIGIT staining of a small subset of lymphocytes



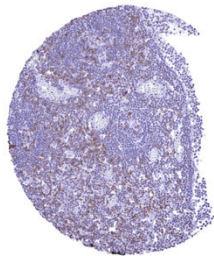
Breast



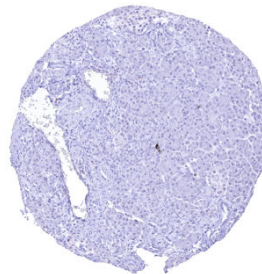
Cerebrum, white matter



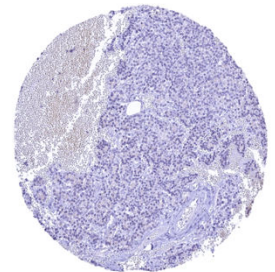
Lung



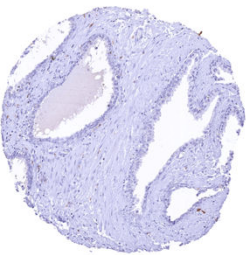
Lymph node – Most TIGIT positive lymphocytes are in the interfollicular area



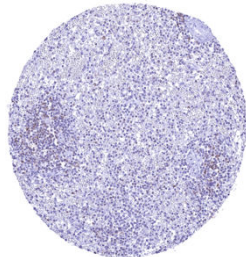
Pancreas



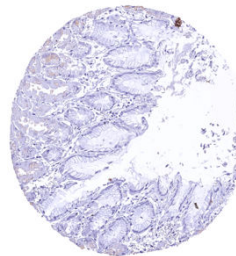
Parathyroid gland



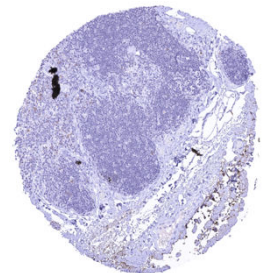
Prostate



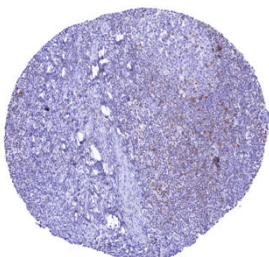
Spleen – Weak to moderate TIGIT staining of a subset of lymphocytes



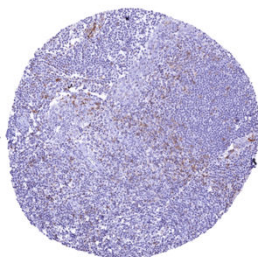
Stomach, antrum



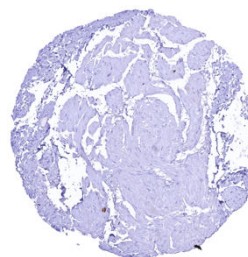
Thymus – Weak TIGIT staining of few lymphocytes



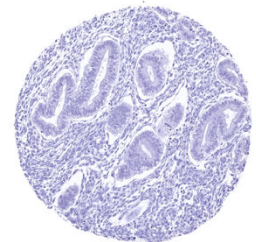
Tonsil – Distinct TIGIT staining of subsets of lymphocytes



Tonsil – Strong TIGIT staining of interfollicular lymphocytes



Urinary bladder, muscular wall



Uterus, endometrium (secretion)