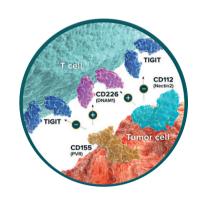


CANCER IMMUNOTHERAPY RESEARCH

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## **TIGIT Pathway Signaling**

T Cell Immunoreceptor with Immunoglobulin and ITIM domains (TIGIT, VSTM3) is an immune checkpoint receptor expressed on the surface of cytotoxic, memory and regulatory T cells (Tregs) as well as natural killer (NK) cells. TIGIT binding to CD155 (PVR) and CD112 (Nectin-2) suppresses immune activation on cytotoxic T cells and NK cells. In the normal immune system, the suppressive effect of TIGIT is counterbalanced by the immune-activating receptor CD226 (DNAM1), which competes with TIGIT to bind CD155 and CD112. The inhibitory signal provided by TIGIT overpowers the ability of CD226 to stimulate T cell activation. Tumor cells exploit the dominance of the inhibitory TIGIT pathway to avoid immune-mediated destruction. Overexpression of TIGIT and reduced CD226 activity are frequently observed in exhausted T cells within tumors, making the TIGIT/CD226 axis a key focus for immune checkpoint blockade strategies.



**SELECTED REVIEWS:** Hitting the complexity of the TIGIT-CD96-CD112R-CD226 axis for next-generation cancer immunotherapy: H.-S. Jin & Y. Park; BMP Rep. **54**, 2 (2021) • TIGIT-CD226-PVR axis: advancing immune checkpoint blockade for cancer immunotherapy: E.Y. Chiang & I. Mellman; J. Immunother. Cancer **10**, e004711 (2022) • TIGIT: An emerging immune checkpoint target for immunotherapy in autoimmune disease and cancer: J. Zhao, et al.; Int. Immunopharmacol. **120**, 110358 (2023) • Targeting TIGIT for cancer immunotherapy: recent advances and future directions: P. Zhang, et al.; Review Biomark. Res. **12**, 7 (2024)

## **Related Recombinant Proteins and Antibodies**

PROTEINS	PID	SIZE	SOURCE	ENDOTOXIN	SPECIES
CD112R (mouse):Fc (human) (rec.)	AG-40B-0170	10 μg   3 x 10 μg	HEK 293 cells	<0.01EU/μg	Ms
CD155 [PVR] (human)-mulg Fusion Protein	ANC-555-020	25 μg	CHO cells	n.d.	Hu
TIGIT (human):Fc (human) (rec.)	AG-40B-0162	50 μg	HEK 293 cells	<0.01EU/μg	Hu
TIGIT (human)-mulg Fusion Protein	ANC-556-020	25 μg	CHO cells	n.d.	Hu
* VSTM5 (mouse):Fc (mouse) (rec.) (non-lytic)	AG-40B-0239	50 μg	CHO cells	<0.01EU/μg	Ms
* VSTM5 (human):Fc (human) (rec.) (non-lytic)	AG-40B-0237	50 μg	HEK 293 cells	<0.01EU/μg	Hu
ANTIBODIES	PID	SIZE	ISOTYPE	APPLICATION	SPECIES
anti-CD112R (mouse), pAb (IN109)	AG-25B-0035	100 μg	Rabbit	ELISA, WB	Ms
anti-CD155 [PVR] (human), mAb (ANC2B2)	ANC-255-020	100 μg	Mouse lgG1κ	ELISA, FACS	Hu
anti-CD155 [PVR] (human), mAb (ANC6A3)	ANC-350-020	100 μg	Mouse lgG1κ	ELISA, FACS	Hu
anti-TIGIT (human), mAb (ANCTG6/10A6)	ANC-340-020	100 µg	Mouse lgG1κ	ELISA, FACS	Hu

<sup>\*</sup> LIT: VSTM5 is a novel immune checkpoint that promotes oral tolerance of cell-mediated and antibody responses: O.E. Oludada, et al.; BBRC 635, 283 (2022)



anti-CD155 [PVR] (human), Rabbit Monoclonal (RM514)

REV-31-1406-00

00 ul

**FIGURE:** IHC staining of FFPE human breast cancer tissue section using Clone RM514 at a 1:500 dilution.





**EUROPE/REST OF WORLD** 

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