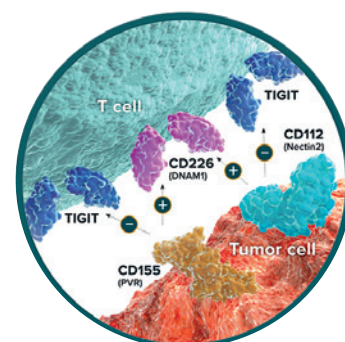


TIGIT Pathway Signaling

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 IgG1κ	ELISA, FACS	Hu
anti-CD155 [PVR] (human), mAb (ANC6A3)	ANC-350-020	100 µg	Mouse IgG1κ	ELISA, FACS	Hu
anti-TIGIT (human), mAb (ANCTG6/10A6)	ANC-340-020	100 µg	Mouse IgG1κ	ELISA, FACS	Hu

*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)

IHC GRADE

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

REV-31-1406-00

100 µl

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

