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Anti-PLXDC2 (3B8) rabbit mAb Conformation specific #2631

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製品の概要

製品名	**Anti-PLXDC2 (3B8) rabbit mAb (#2631)**
フォーマット	未標識
濃度	1.0 mg/mL
種交差性	Human, Mouse
組成	1×PBS, 0.05% (w/v) Ploclin300
精製方法	Ion exchange chromatography
アプリケーション	ELISA 1:5000~10000 Native-Western blotting, 1:1000-2000
免疫原	HEK293 cells expressing human PLXDC2
ポリ/モノ	モノクローナル
クローン名	3B8
アイソタイプ	Rabbit IgG1k
保管条件	-20ºC
別名称	TEM7R, 1200007L24Rik, 5430431D22Rik
Uniprot ID:	Q6UX71

ターゲット情報

Plexin domain containing protein 2 (PLXDC2), a cell surface transmembrane protein, is expressed in many tissues including haemotopoeitc stem cells, neural stem cells, pluripotent stem cells, and tumor cells. PLXDC2 may play an important role in neuronal growth, stem cell development, angiogenesis, and cancer cell growth. Recently PLXDC2 was reported a good cell surface marker as human haemotopoetic stem cells [(1)].
PLXDC2 has been reported as a receptor for pigment epithelium derived factor (PEDF) [(2)] or as an activating ligand for adhesion G-protein coupled receptor D1 (Adgrd1) [(3)]. Also PLXDC2 was thought as a novel interaction partner and an entry receptor for rhesus monkey rhadinovirus (RRV) [4)]. The gene expression level of PLXDC2 was elevated in the peripheral blood of stroke patients [(5)] or in mouse bone marrow-derived macrophages in response to *Helicobacter pylori* [(6)]. The protease BACE1 (β-Site APP Cleaving Enzyme), a major drug target in Alzheimer's disease, cleaves the amyloid precursor protein (APP) as well as PLXDC2 as one of several other substrates [(7)].

参照論文

(1) Tanaka Y et al 2021 bioRXiv Sep 27: 2021.09.27.461900v1.doi: 10.1101/2021.09.27.461900.
(2) Cheng G et al. 2014 Elife. 3:e05401
(3) Bianchi E et al 2021 Nat Commun. 2021 12(1):1251.
(4) Großkopf AK et al. 2021 PLoS Pathog. 17(3):e1008979
(5) O'Connell GC et al. 2017 Genom Data. Sep 14:47-52.
(6) Tubau-Juni N, et al 2020 Sci. Rep. 10(1):11506.
(7) Dislich B et al. 2015 Cell Proteomics. 10:2550-63

本抗体を使用した論文（論文数２）

1. Sakuma C. et al. Western blotting of native proteins from agarose gels Biotechniques Apr 6 (2022).
2. Akuta T. et al. A new method to characterize conformation-specific antibody by a combination of agarose native gel electrophoresis and contact blotting. Antibodies 11(2), 36. (2022).

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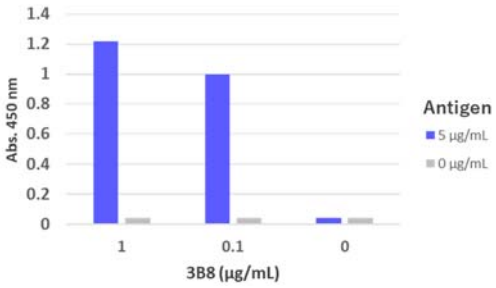
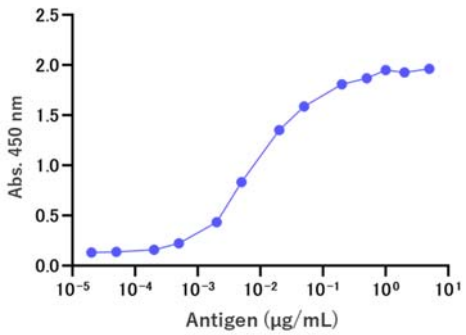
使用例

ELISA



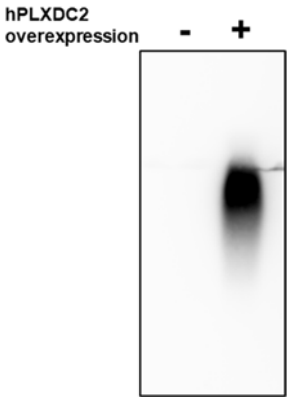
Microtiter wells were coated with human PLXDC2-ECD (extracellular domain, truncated a transmembrane domain from PLXDC2) at 5 μg/mL. Anti-PLXDC2 (3B8) rabbit mAb (Cat. #2631) was diluted at 1 μg/mL and 0.1 μg/mL. Anti-PLXDC2 (3B8) rabbit mAb show very specific binding to human PLXDC2-ECD antigen.

Sandwich ELISA



A sandwich ELISA was performed using anti-PLXDC2 specific rabbit mAb: 3B8 (Cat. #2631) as a capture antibody and 4G3-biotin (Cat. #2535) as a detection antibody. Human PLXDC2-ECD was serially diluted 1:1 starting at 5 μg/mL. Anti-PLXDC2 rabbit mAb 3B8 and 4G3-biotin detected hPLXDC2-ECD antigen at very high sensitivity as low as 100 pg/mL.

Native-Western



Native-agarose-Western blot analysis of extracts from HEK293 cells, untransfected or transfected with human PLXDC2 gene, with anti-PLXDC2 (3B8) rabbit mAb at 0.5 µg/mL Cat. #2631